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1883–84

CONTENTS.

CHAPTER I.—THE DISTRICT.

CHAPTER II.—HISTORY.

CHAPTER III.—THE PEOPLE.

Statistical—

...d Religious Life—

Section C.—Tribes, Castes, and Leading Families—

Section D.—Village Communities and Tenures—

CHAPTER IV.—PRODUCTION AND DISTRIBUTION.

Section A.—Agriculture, Arboriculture, and Live-Stock—

ion A.—Agriculture, Arboriculture, and Live-Stock—(continued)—

Section B.—Occupations, Industries and Commerce—

Section C.—Prices, Weights and Measures, and Communications—

CHAPTER V.—ADMINISTRATION AND FINANCE.

Section A.—General—

B. Land and Land Revenue—

Section B.—Land and Land Revenue—(continued)—

CHAPTER VI.—TOWNS, MUNICIPALITIES, AND CANTONMENTS.

APPENDIX A.

Memo. on the cultivation and Manufacture of Indigo in the Mooltan district written at the time of the 1st Regular Settlement by Mr. Morris, Settlement Officer.

APPENDIX B.

The Inundation Canals of the Mooltan District (by Mr. Morris, A.D. 1860)—

Table No. I, showing LEADING STATISTICS.

1	2	3	4	5	6	7
		Detail of Tahsils.				
DETAILS.	District.	Mooltán.	Shujábád.	Lodhrán.	Mailsi.	Sarai Sidhu.
Total square miles (1881)	5,880	949	322	781	2,076	1,752
Cultivated square miles (1878)	1,249	172	107	190	676	104
Culturable square miles (1878)	4,247	716	199	549	1,274	1,509
Irrigated square miles (1878)	641	170	107	190	71	103
Average square miles under crops (1877 to 1881) ...	730	190	110	136	195	99
Annual rainfall in inches (1866 to 1882) ...	6·5	6·5	6·7	6·0	4·0	6·8
Number of inhabited towns and villages (1881) ...	1,293	287	80	179	448	299
Total population (1881)	551,964	170,610	61,622	98,203	141,517	80,012
Rural population (1881)	463,881	101,936	55,164	94,328	134,672	77,781
Urban population (1881)	88,083	68,674	6,458	3,875	6,845	2,231
Total population per square mile (1881) ...	94	180	191	126	68	46
Rural population per square mile (1881) ...	79	108	171	121	65	44
Hindus (1881)	112,001	44,950	10,747	14,405	28,815	13,084
Sikhs (1881)	2,085	953	144	471	391	126
Jains (1881)	47	46	1	...	...	...
Musalmáns (1881)	435,901	122,831	50,705	83,259	112,310	66,796
Average annual Land Revenue (1877 to 1881)* ...	728,495	156,670	135,777	158,897	178,015	99,136
(1877 to 1881)† ...	898,976	...	...	...	...	...

* Fixed, fluctuating, and miscellaneous. † Land, Tribute, Local rates, Excise, and Stamps.

CHAPTER I.

THE DISTRICT.

Chapter I.

Descriptive.

General description.

The Mooltán district is, with the exception of Muzaffargarh, the most south-western of the four districts of the Mooltán division, and lies between north latitude 29°22′ and 30°45′, and east longitude 71°4′ and 72°55′. It is bounded on the north, east and west by the districts of Jhang, Montgomery and Muzaffargarh, and on the south by the independent State of Baháwalpur. It forms the southern extremity of the Bárí Doáb. The Sutlej separates it from Baháwalpur, and the Chenáb from Muzaffargarh; but in the case of Jhang and Montgomery the boundary is an artificial one; for Montgomery it is a purely imaginary line through the *bár*, for Jhang it is a line following village boundaries, so drawn as to assign to Mooltán all the villages irrigated or benefited by the Rávi. The shape of the district is that of a rough triangle, having as its base the Montgomery line, and its apex the point of junction of the Chenáb and Sutlej. The length of the base line is about sixty miles; that of the Sutlej line one hundred and twenty miles, as the crowflies; and that of the Chenáb, and its continuation the Jhang line, some 10 or 20 miles longer. The area within the above boundaries, according to the Revenue Survey which was made in 1856-58, is as follows:—

Tahsíl.	Cultivation, including fallow.	Lately abandoned.	Fit for cultivation.	Barren waste.	Total.	Government waste.	Village lands.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Mooltán	112,220	8,269	447,981	38,928	607,398	228,475	378,923
Shujabád	69,505	4,246	121,979	10,330	206,060	9,068	196,992
Lodhrán	122,887	18,415	331,902	26,578	499,732	75,240	424,492
Mailsi	142,482	27,313	1,078,334	80,193	1,328,272	728,417	599,855
Sarai Sidhu	58,127	8,101	965,957	89,345	1,120,530	882,996	238,534
Total ..	505,121	66,344	2,946,153	245,374	3,762,992	1,924,196	1,838,796

This gives a total area of 5,879 square miles, of which more than half is Government waste. The latter includes a few old villages which were found deserted and unclaimed at the Settlement of 1858, but by far the greater part of it is undemarcated jungle. The lands of the villages measured only 2,873 square miles, of which again only 789 were cultivated. The cultivation was thus only 13·5 per cent. of the total area, whilst 85 per cent. of the latter had never been broken up at all. It is divided into five *tahsíls*, of which that of Sarai Sidhu comprises the Rávi riverain and the northern portion of the Chenáb lowlands and central plateau; that of Mailsi the eastern riverain of the Sutlej and the south-eastern part of the plateau; and that of Lodhrán the western riverain of the Sutlej and

Chapter I.

Descriptive.

General description.

the angle at the junction of that river with the Chenáb; while the Mooltán and Shujábád *tahsils*, of which the former lies to the north and the latter to the south, include the median lowlands of the Chenáb, the Mooltán *tahsíl* also stretching away from the river into the centre of the district. Some leading statistics regarding the district and the several *tahsíls* into which it is divided are given in Table No. I as a frontispiece. The district contains one town of more than 10,000 souls; namely Mooltán with a population of 68,674. The administrative head-quarters are situated at Mooltán, on the Sindh, Punjab and Delhi Railway, and four miles from the left bank of the Chenáb, or about the middle point of the western boundary of the district. Mooltán stands third in order of area and twentieth in order of population among the 32 districts of the province, comprising 5·51 per cent. of the total area, 2·93 per cent. of the total population, and 3·61 per cent. of the urban population of British territory. The latitude, longitude, and height in feet above the sea of the principal places in the district are shown in the margin.

Town.	N. Latitude.	E. Longitude.	Feet above sea-level.
Mooltan ..	30° 12′	71° 31′	402
Shujabad ..	29° 53′	71° 20′	330*
Lodhran ..	29° 32′	71° 41′	380*
Mailsi ..	29° 48′	72° 13′	400*
Sarai Sidhu ..	30° 36′	72° 2′	390*

* Approximate.

Physical features.

The old Rávi.

The whole of this tract is an alluvial plain sloping gently from the north-east to the south-west. It is all of comparatively, and much of it of very recent formation. Originally the Rávi flowed almost in a straight line from beyond Tulamba, *i. e.*, from the point of its entering the district, to Mooltán. Its first change was to forsake its old bed for the Sidhnái reach, which is a perfectly straight cutting some ten or twelve miles in length, from a little to the west of Tulamba to Sarai Sidhu, that is, from Kuchlamba to Rám Chauntra, where the Hindus have temples on both banks, and where a fair is held yearly in Baisákh. This reach is said by some to have been an old canal, but when the river adopted it as its bed, it is impossible to say. The true origin of this Sidhnái is a great puzzle. The width of the bed, and the absence of all traces of excavation, tell strongly against the canal theory. On the other hand it is very difficult to imagine the river cutting for itself a perfectly straight channel through the hardest and highest land in the neighbourhood. Tradition says that a beautiful goddess bathed in the river, and the river-god wished to see her. As she hid behind successive corners, he straightened them out to obtain a view of her, and thus produced the Sidhnái reach. The story current among Hindus is that one day Ráma and Lachman were bathing here, and having no one to watch their clothes, commanded the river to run straight on, which it did. A legend is current amongst Mahomedans that the Sidhnái reach was excavated by a Mahomedan king whose name is forgotten. It is overhung by brushwood and trees on both banks, and is probably the prettiest spot in the rivers of the Punjab plains. On leaving the Sidhnái reach the river at first again turned to the south, and finding its way back into its old channel, continued to flow past Mooltán. Subsequently it made a further change, and ran fairly straight from the Sidhnái reach to the Chenáb, deserting Mooltán altogether. The

Chapter I.

Descriptive.

The old Rávi.

date of the change is unknown, but was certainly subsequent to the days of Chach and Muhammad Kásim in the 7th and 8th centuries of our era; and "from the very numerous existing remains of canals drawn from the old channel," General Cunningham infers* that "the "main river must have continued to flow down it within a comparatively "recent period, perhaps even as late as the time of Taimúr. The "change however must have taken place before the reign of Akbar, "as Abul Fazl† describes the distance from the confluence of the "Chenáb and Jhelum to that of the Chenáb and Rávi as 27 *kos*, and "the distance of the latter from the confluence of the Chenáb and "Indus as 60 *kos*, both of which measurements agree with the later "state of these rivers." As to the date of the still earlier change from the original bed below the old high bank to the Sarai Sidhu channel, it is impossible to make even a conjecture. The latter probably rejoined the original channel at the point where it now has the appearance of turning to the westward 18 miles from Mooltán. The course thus made has been preserved ever since, but in high floods the Rávi still shows a liking for its old bed. In most years a fair supply of flood water finds its way into the old channel, near Tulamba, and the low lands between them, and flows towards Mooltán for a distance of some 15 miles. The tract thus watered is known as the *jhangar*, and it contains the best pasture and the best trees in the whole district. The old channels near Mooltán do not now get any water from the Rávi, but the drainage of the surrounding country as well as surplus canal water pours itself into them, and much injury to the suburbs of the city is sometimes caused by their overflow. The old high left bank of the Rávi is nowhere so marked as in the Montgomery district, but it is distinctly traceable near Talamba, and it runs along the *jhangar* tract, forming its southern boundary, parallel to the old channel, at a distance of three or four miles from it. But it disappears, merging into the ordinary bank of the old channel, at last 20 miles to the east of Mooltán. On the right hand side of the old channel, that is between it and the present river and the Chenáb, the land is in places somewhat high, but there is no trace of any defined bank.

The old Beas.

Until the Beas joined the Sutlej at Hari-ke, in the Amritsar district, an event which is supposed to have taken place some 100 or 150 years ago, although it certainly occurred much longer ago than that, it flowed in a separate channel through the Lahore, Montgomery and Mooltán districts, and emptied itself into the Chenáb. The old bed is now entirely dry, and never contains any water except rain and the drainage of the *bàr*. But it is extremely well marked, and runs almost unbroken from the point where it enters the district, which is some 25 miles north of the Sutlej, until it reaches the low lands of the Chenáb, where it breaks up into a number of cuts and hollows. This last point is also some 25 miles north of the Sutlej, and this is about the mean distance of the old Beas from that river. But the channel is very winding; in some places it is quite 30 miles from the, Sutlej, at others it is less than 20. For about two-thirds of its course its old high right bank is very clearly defined, and it runs parallel to the old channel at a distance of about four miles. For the remainder

* Ancient Geog., I, pp. 221-2.
† Ain Akbari, II, 3.

Chapter I.
Descriptive.

of the distance it merges in the ordinary bank, like the old high left bank of the Rávi. On its left or southern side the old Beas has no high bank.

The Chenáb.

The depth of water in the Chenáb during the cold weather averages about 10 feet, rising during the floods to 16 feet.* The bed is extremely broad, the cold weather stream following a tortuous course among sandy islands and alluvial beds thrown up by the floods of the preceding season. The Chenáb water is said to be far more fertilizing than that of the Sutlej, and land subject to inundation from it is far more valuable. The people of the Lodhrán *tahsíl*, whose lands receive benefit from both rivers, mark the difference by calling the Sutlej *nar* or "male," and the Chenáb, *máda* or "female." The stream is navigable throughout by country boats, and steamers ply upon it as far as Sher Shah, the terminus of the Lahore and Mooltán railway, 14 miles below Mooltán.

The Sutlej.

This river is locally known by the names of Níli and Ghárá. Its course in this district is marked by the absence of any well-defined high bank. The whole country, as far as the central high bank of the old Beas, is of comparatively recent alluvial formation, and rises to a far less elevation above the level of the river than is the case elsewhere in the Lower Punjab. The river bed is narrower and more sharply defined than that of the Chenáb, and the depth of water during the cold weather seldom exceeds 12 feet, rising in time of flood to 18 feet.* On the other hand, the Sutlej floods are more capricious in their action than those of the Chenáb, and the area of cultivation on its banks fluctuates considerably from year to year. In cases of alluvion and diluvion, the deep stream is recognized in all cases as the boundary both of estates, and of late years as between British territory and the State of Baháwalpur. The stream is navigable throughout by country boats, and steamers occasionally go as far up as Ferozepore.

The central plateau.

The centre of the district is thus a high plateau between the old left bank of the Rávi and the old right bank of the Beas. These two banks are about 20 miles apart; they are fairly parallel, and they both disappear at about the same distance from the Chenáb. When the two rivers flowed in their old channels, this central plateau formed the *bángar chaks*, that is lands beyond the reach of the inundations, but easily irrigable by wells and canals, and there is every reason to believe that they were so irrigated. Not only do former histories show that the tract must have been well cultivated and thickly populated, but there is existing evidence of former prosperity of a very high degree. Numerous canals from the old Rávi traversed the tract; the remains of these, with their distributaries, can be most clearly traced, and they show that some of them were really fine works. All over the plateau are traces of old wells and large mounds covered with broken brick, marking the ruins of former towns and villages. All remembrance of the names of these and their inhabitants has died away, but the extent of the ruins and the remains of old forts near them show that many of them were once places of importance. This once rich plateau is now a barren desert.

* The difference between the average level in January and the level of the highest floods is given by the officers of the Canal Department as 13 feet for the Chenáb and 9 feet for the Sutlej. This is really not in conflict with the statements in the text.

Chapter I.

Descriptive.

The central plateau.

It is utterly without cultivation, quite destitute of anything which can be called grass, and its only trees are a few stunted bushes of the inferior class. It is simply a vast plain of hard clay *(pat)* unrelieved by any signs of human life as far as the eye can reach. It is this tract which is specially known as the *bár*, although this term is often applied to all the high uncultivated waste beyond the reach of the rivers.

Northern lowlands.

On either side of this plateau lie the former lowlands of the two rivers. Those to the north have already been described. Immediately under the high bank comes the tract known as the *jhangar*; then another plateau of culturable, but rather high and barren land; then the lowlands of the Rávi and Chenáb. This tract is not intersected by any old *nálás* or water-courses, except the beds of the old Rávi; nor has it any canals beyond a few private cuts from the river near Talamba.

The trans-Rávi tract.

The portion of the district lying to the north of the Rávi comprised, before the transfer of some of the Rávi villages from Jhang at the recent Settlement, some 302 square miles, nearly four-fifths of which is undemarcated waste, the property of Government. This waste forms part of the *Sándal bár*, which runs from the Gujránwálá to the Jhang district, forming the centre of the plain lying between the Chenáb and Rávi. It is dotted with some half dozen villages. It receives the drainage of the north-east part of the *bár*, so that there is generally good pasture, and in favourable years there is a very fair amount of cultivation. The village lands may be divided into two groups, those which lie along the Sidhnái reach, and those along the other parts of the river. The latter depend mainly on the *sailáb* which they receive either by direct overflow or by small cuts from the river, but there are generally a fair number of wells to assist the cultivation. The villages on the Sidhnái are peculiar. For its whole length, some ten or twelve feet deep from the bank, there stretches almost continuously a thick grove of fine date trees. Beyond these there is a strip of land some 300 or 400 yards wide, irrigated by *jhalárs* from the river. Then comes a strip of high barren ground about half a mile wide, dotted with a few wells and clusters of date trees gathered around the village site. Beyond this strip of waste come the well lands, which are low, and irrigated without difficulty by the numerous cuts from the river. At least the irrigation should be without difficulty, but owing to want of co-operation and unskilful engineering it is not nearly so good as it should be. Instead of one fairly large channel to bring the water across the waste and tn distribute it, each village, and sometimes even each well, has a long cut all to itself; half a dozen of these may be seen running close together for two or three miles before they irrigate an acre of land. The consequence is that the earth thrown from one cut falls into another; the proprietors cannot afford to thoroughly clear them out; year by year the clearance of them becomes more difficult and expensive; and at last they are abandoned, after the proprietor has ruined himself in his endeavours to maintain them.

The western lands.

As already stated, the plateau sinks on its western side imperceptibly into the lowlands of the Chenáb, passing without any marked change first into the Ráwá, then into the Utár belts, and finally into

Chapter I.
Descriptive.
The western lands.

the *sailáb* lands on the river side. This tract contains the whole of the Shujábád and the best lands of the Mooltán *tahsíl*, by far the most fertile part of the district. It is well wooded, and thoroughly protected by wells and canals; here and there are patches of barren and poor soil; but the general appearance is a vast plain of luxuriant crops, in spring wheat, and in the autumn indigo, rice and sugar.

The southern lands.

To the south of the plateau, between it and the Sutlej, the cultivation is almost confined to lands, within the immediate influence of the canals or river. For about 30 miles from the eastern boundary of the district, this belt of cultivation is only five or six miles broad, having some 20 miles of waste between it and the central *bár*. Across this a canal has been made since the Settlement of 1858 by Ghulám Kádir Khán, by which more than 50,000 acres have been brought under cultivation. The remaining waste varies much. The whole of it is intersected by numerous *nálás* and portions of the beds of old streams. They were all probably connected with the old Beas, or the Sutlej, and though one or two of them have still local names, they could never have claimed to be classed as independent streams. They have all been dry for many years, far beyond the memory or immediate tradition of the present generation; but in the rainy season the rainfall collects in them, and they also receive the drainage of the adjoining waste. Consequently they and the lands near them afford excellent pasture, almost as good as that of the *jhangar*, to large herds of cattle, and the timber in places is very fine indeed. Besides these beds of *nálás* there are numbers of smaller scattered hollows, more especially to the north towards the old Beas. These are called *dhorahs*. The water collects in them as in the *nálá* beds, and in favourable years magnificent crops of wheat are produced in them. But such years are not more than one in four, and in half the other years there is no crop at all. The rest of the waste is very inferior, in fact little better than the central *bár*. In the western half of this southern part of the district, the canals almost reach the old Beas, nearly all the land is included within village boundaries, and is more or less under cultivation. But the old *nálás* continue to intersect the country down to the junction of the two rivers; they cease to do good to the adjacent lands, but their beds are freely used for cultivation, especially for that of indigo.

General aspect.

Bet, hitár and *khádar.*

Bángar and *utár.*

The general aspect of the district is therefore as follows. Starting from the present banks of the rivers Chenáb and Sutlej, we find first of all a strip of land subject to *sailáb* or the annual overflow of the rivers during the rains. This strip extends inland, about three miles on the Sutlej, and rather further on the Chenáb and Rávi. These lands form the low *chaks* or assessment circles of the regular and present Settlements; they are called *bet* on the Rávi, *hitár* on the Chenáb, and *khádar* on the Sutlej. They are traversed by the canals, but do not generally receive much canal water. Beyond these lands comes a belt of higher land where wells can be made without difficulty, the water being from 20 to 30 feet below the surface, and on which canal irrigation is generally plentiful. The depth of this belt depends chiefly on the canals. Where there are none, as in

Chapter I.

Descriptive.

Bangar and utár.

most parts of Sarai Sidhu, it is not more than four or five miles; along the Chenáb, where the canals run almost parallel with the river, it is six or seven miles; and along the Sutlej, where they strike more inland, it is more than ten miles. This belt forms the *chaks* known as *bángar* on the Rávi and Sutlej, and as *utár* on the Chenáb. The land between these *chaks* and the *bár* is known throughout the district as the Ráwá. Where it is reached by the canals, the cultivation is superior; but where there are no canals, it is only in favourable spots such as slight hollows where the drainage water collects, that wells can be worked with any profit. Filling the centre of the district comes the barren plateau of the *bár*.

Past and present state of the country.

Comparing the past and present condition of the country, it will at once be seen what a change has taken place. At the era when both the Beas and Rávi passed through the length of the district, the whole, excepting only the high Ganji *bár*, intercepted between the high banks of these rivers, must have been open to profuse irrigation, either from one of these, or from the Chenáb or Sutlej. At the present day one of these streams, the Beas, it totally lost to the district, while the other, the Rávi, waters only the extreme northern corner. In the 10th century of our era, Al Mazúdi describes Mooltán as surrounded by 120,000 hamlets—an evident exaggeration, but one which gives an idea of general prosperity. At the present day the cultivated area represents only about one-fifth of the total area of the district; the remainder is at best a wild jungle of brushwood; its soil for the most part intrinsically good, but requiring copious irrigation to render it productive.

The *bár*.

The distinguishing names for different parts of the *bár* country known in the Montgomery district, also extend into this. The high tract between the old banks of the Rávi and Beas is known as the Ganji *bár*. Between this and the Chenáb lies the Ráwá, or Rávi *bár*; to the south of it the Beas *bár* and the Níli *bár*, on the old Beas and Sutlej respectively. The Ganji *bár* in no way differs from the corresponding tract in Montgomery, and would be a completely sterile waste were it not for a scanty growth of *jand (Prosopis spicigera)* and *jál (Salvadora oleoides)*. It is frequented only by camel-breeders. Water can be obtained for drinking in wells of about 41 to 48 feet in depth. The upper portion of the Rávi *bár*, or Ráwá, is thickly grown towards the interior with a brushwood of *jand* (*Prosopis spicigera*), *karíl* (*Capparis aphylla*), and *pilchhi* (*Tamarix Indica*), interspersed with the loftier *Tamarix orientalis* or *farásh*, and nearer the rivers with groves of date palms and occasional mangoes *shísham* (*Dalbergia sissu*), and other planted trees. In the lower portions of the Ráwá lying to the east of Mooltán, the *bár* vegetation grows more scanty, and trees are few and far between, groves of date palms and mangoes commencing only a few miles from Mooltán itself. The *bár* country to the south of the high bank of the old Beas differs entirely in its features from the Rávi *bár*. As has been already explained, this country has but a slight elevation above the level of the Sutlej, and is of comparatively recent alluvial formation. The upper soil is, with irrigation, capable of producing good crops, and the country is here and there well wooded; but deep

Chapter I.

Descriptive.

The *bár*.

sand is met with a few feet below the surface,* and in the absence of water artificially supplied, for mile after mile the country is completely desolated and sterile, without a trace of grass or other vegetation. This part of the *bár*, however, is specially rich in the traces of past prosperity of comparatively recent date; the names are still preserved of numerous towns and canals, of which the remains are in all directions visible. The chief of these canals, the Shekhwáh, of which the course can be distinctly traced, has been dry for rather more than half a century. The *bár* lands are principally valuable for pasture; and the proceeds of the grazing tax (*tirni*) are an important item in the State revenue derived from the district. The sale of *ghí* (clarified butter) is a lucrative source of income to the pastoral tribes of the *bár*. The only marketable items of jungle produce requiring mention are *sajjí* (impure charbonate of soda), as to which see Gazetteer of Montgomery and other districts; and saltpetre.

Canals.

The canals are described and the system of administration discussed in detail in Section B of Chapter V. They are of two classes, the larger and the smaller. The latter, which are known by the name of *kassi*, occur only on the Rávi. They are small cuts constructed by particular villages, or particular individuals, for the irrigation of their own lands, and seldom exceed three miles in length. At the time of Mr. Morris' Settlement there were 81 of these cuts in working order, out of a total of 160, in the *talúkas* of Talamba and Sidhna of *tahsíl* Sarai Sidhu. There were also four small cuts (out of use) in the *talúka* of Sarai Sidhu. These cuts were mostly constructed in A.D. 1820; and all are said to have remained in active use till 1838, when by a change in the course of the river more than half their number lost their supply of water. The irrigation from this source, when the supply of water is favourable, is of a very superior kind. The larger canals, or *nálás*, are of a more ambitious character, and involve a considerable outlay of labour and capital. They derive their supply from the Chenáb and Sutlej when in flood. The principal canals on the Chenáb are 14 in number, as follows:—

Mattitál.	Wali Muhammad.	Jalálpur.
Khadal.	Sikandarabád.	Panjání.
Tahirpur.	Gajjúhattá.	Síkandarwáh.
Durána Langána.	Bakhtúwáh.	Bilochánwáh.
Sháhpur.	Dhúndhán.	

The Sutlej canals are 19 in number, as follows:—

Díwánwáh.	Sultánwáh II.	Baháwalwáh, Lodhran.
Chattarwáh.	Abbanwáh.	Mubárakwáh.
Jámwáh Khurd.	Jamráníwáh.	Kháhwáh.
Jámwáh Kalán.	Muhammadwáh.	Shekhwáh (Gharbia).
Kábilwáh.	Sardárwáh.	Bahádarwáh.
Sádikwáh.	Shehkwáh.	Háfizwáh.
Baháwalwáh, Mailsi.		

Most of the canals have been excavated either entirely by or with assistance from the ruler of the day. Diwán Sáwan Mal was especially energetic in this direction. The management and supervision of the canals, their repairing, and the regulation of the water-

* The sandy nature of the soil greatly increases the cost and difficulty of sinking wells, as it is necessary not only to have masonry sides, but to line the masonry with wattles. The soil too it so yielding that it cannot bear the weight of buffaloes treading round the wells. Bullocks only can be used to work them.

Canals.

supply has always devolved upon the State, the necessary labour being under native governments supplied according to fixed rules by the people. Under British rule a fixed water-rate is charged upon all estates benefiting by the canals, and the whole work of supervision is vested in the officers of the Irrigation Department. This present system of canal assessment and management is fully described in Chapter V, while a complete list of the canals with the area irrigated by and revenue derived from each will be found in the same Chapter. These canals are cuts from the river varying in length from 3 or 4 to 50 miles, and in width from 10 to 40 feet, running inland as far as the slope of the country will allow. As this slope is from north-east to south south-west, the course of the canals is nearly the same as that of the rivers, and they irrigate almost entirely on the south side, that is the Chenáb canals on their right hand and the Sutlej canals on their left hand bank. The first of the Chenáb canals leaves the river about 30 miles to the north-east of Mooltán; the last leaves it about 50 miles to the south-west on the borders of the Shujábád and Lodhrán *tahsíls*. Within this distance of 80 miles there are 12 canals, so that on an average there are only seven miles between each canal, and as far as the canals reach, the country is completely protected. The total length of the Chenáb canals is 238 miles, giving an average of a little more than 20 miles a canal; but their length is by no means equal; 4 of the 12 are under 10 miles; 1 is 12 miles; 4 are from 20 to 25 miles; and 3 are from 30 to 40 miles long. The first of the Sutlej canals, the Diwánwáh, leaves the river just below Lúddan; the last, the Háfizwáh, leaves it at a point below the town of Bahádarpúr. The intervening distance is about 90 miles; and as there are 19 canals, the average distance between each would be much the same as on the Chenáb. The total length of the canals is 436 miles, or an average of 23 miles each; but as on the Chenáb the length varies considerably, 3 of them are under 10 miles, 8 are from 10 to 20 miles, 2 are from 20 to 30 miles, 3 are from 30 to 40 miles, 2 from 40 to 50 miles, and 1 is over 50 miles long. The total length of all the canals, counting the main channels only, is thus 659 miles. Since the Regular Settlement one of the Chenáb canals, the Jalálpur, has been abandoned, but the Daurána Langáná has been considerably lengthened. On the Sutlej one of the Sultánwáhs has been abandoned, but the Chatterwáh, formerly a branch of the Jamwah Kalán, has been made into a separate canal. Only two of them, *viz.*, the Walí Muhammad and the Sikandarábád, which flow past the city of Mooltán, are used for navigation, and even on them this consists merely in the floating of logs of timber down to the city, or of conveying to it the cargoes of larger vessels which have been unladen at the river bank. All the canals are merely inundation, that is channels for conveying off the surplus water of the rivers between April and September; but very occasionally, as was the case on the Chenáb in 1877-78 and on the Sutlej in 1876-77, there is a small supply of water in one or two of the canals throughout the cold weather.

Soils.

The greater part of the waste consists of hard clay known as *pat*, but in some places, especially in the centre of the district, in the north-west of the Mailsi *tahsíl*, in the south of Shujábád, and in parts

Chapter I.
Descriptive.
Soils.

of Lodhrán, there are extensive tracts of sand. These are rather more undulating than the ordinary *bár*, but there is nothing in them resembling the sandy hillocks of the Muzaffargarh district. The soils of the cultivated lands vary from the stiffest clay to mere sand, but the variations are by no means well marked, and the classification is little more than nominal, and some of the names are not locally used. Such as it is, it is as follows :—

1. *Sikand or Rorah.*—A hard stiff clay of dark colour; absorbs water with difficulty, and is best used for growing rice.
2. *Gusrah or Dakar.*—A lighter clay easily irrigated, and fertile, generally well manured and well adapted for all crops.
3. *Rappar or Kenkàni.*—An inferior clay mixed with sand.
4. *Reti or Tibba.*—Little better than mere sand.

Natural products.

No minerals are found in the district. *Kankar* is here and there found sparsely on the surface, and the Executive Engineer has dug a good deal from the bed of the Sidhnái reach. The wood of the *bár* consists mainly of mere bushes of scrubs. Such trees as there are, are the *jand (Prosopis spicigera)*, *karîl (Capparis aphylla)*, *jàl* or *pilú (Salvadora obsidex)*, and the *faràsh (Tamarix orientalis)*. The galls of the *faràsh* known as *màìn* are used for dyeing, and give the various shades of *khàkì*, or greyish brown. The *dhàk* or *palàs* tree (*Butea frondosa*) is also found in a few places; its flowers, the *gulkesù*, are used as a dye, or ground into the coloured powder used at the *Holì*. The plants used in making *sajjì* or impure carbonate of soda, a full account of the manufacture of which is given at page 86 of Powell's *Punjab Products*, are plentiful in the Mailsi *tahsìl*, and they are also found in other parts of the *bàr*. Near the cultivated lands the *kìkar* (*Acacia Arabica*) grows to a fair size. Date trees may also be called a spontaneous product; they grow luxuriantly along the Sidhnái reach, in the neighbourhood of Mooltán, and in most villages along the Sutlej and Chenáb, and they also grow in many of the *bàngar* villages, but they are not found in the Ráwá *chaks*. The mangoes of the district, especially in Shujábád, and a few near Mooltán of the kind called *sufeda* and *Shah pasand*, are very good, but this tree is of course carefully reared.

Wild animals.

Wolves are very common in the district. Within the five years ending 1882, Rs. 1,333 were paid for the destruction of 350 wolves.

Geology.

Our knowledge of Indian geology is as yet so general in its nature, and so little has been done in the Panjáb in the way of detailed geological investigation, that it is impossible to discuss the local geology of separate districts. But a sketch of the geology of the province as a whole has been most kindly furnished by Mr. Medlicott, Superintendent of the Geological Survey of India, and is published *in extenso* in the Provincial volume of the Gazetteer series, and also as a separate pamphlet.

Rainfall, temperature and climate.

Mooltán is celebrated for its heat, but it is doubtful whether it is really much hotter than most other districts in the plains. As elsewhere in the Punjab, the cold weather is delightful; in March there are some hot days, but a storm or series of storms generally comes, and the mornings and evenings remain fairly cool till well into May.

Chapter I.

Descriptive.

Rainfall, temperature and climate.

From then to the end of June it rapidly gets hotter, the last week or ten days of June being usually very oppressive. For some reason or other, although there seems to be only too much hot wind, tatties will not work in Mooltán. What the weather will be from the end of June to the beginning of the cold weather is a great chance. In favourable years a pleasant breeze sets in with the rains, and continues to blow on and off throughout July; in August there are generally some hot steamy days; in September the days are still hot, but the mornings and evenings become cool, and this coolness increases until the cold weather sets in, generally with a thunderstorm, about October 15th, but it is too hot to be pleasant in tents till the beginning of November. This is the weather in favourable years; in unfavourable ones no breeze sets in, and as soon as the scanty showers cease, the whole place begins to steam.

A Muhammadan legend represents the sun as standing nearer to Mooltán than to any other part of the world, the orb having descended a spear's-length at the bidding of a saint to cook his food, and neglected to return. A more than ordinarily reliable record exists of the rainfall and temperature in a series of meteorological observations taken by Dr. De Renzy during the years 1862—1867. These observations give the following mean results:—

Mean results of Meteorological observations at Mooltán, 1862—1867.

Month.	Temperature of the air in the shade (degrees Fah.).			Mean rainfall.
January	75·35	27·35	54·70	0·372
February	85·50	31·36	60·19	0·448
March	98·00	37·90	70·30	0·351
April	109·16	55·03	81·84	0·480
May	115·08	60·25	89·87	0·735
June	116·05	71·15	95·73	0·340
July	111·70	75·58	93·73	1·577
August	107·17	72·65	91·81	1·528
September	105·76	61·46	87·92	0·520
October	99·95	46·67	76·68	0·413
November	91·42	36·85	65·65	0·045
December	78·00	31·27	56·24	0·464

The hottest month, it will be seen, is June, in which the mean temperature of the air in the shade stands at 95·73. The average of the ten years subsequent to 1867 as furnished by the meteorological reporter at Lahore, are given below, while Table No. IV shows the leading figures for temperature for the last 14 years in a convenient form. Table No. III shows in tenths of an inch the total rainfall registered at each of the rain-gauge stations in the district for each year, from 1866-67 to 1882-83. The fall at head-quarters for the four preceding years is shown in the margin. The distribution of the rainfall throughout the year is shown in Tables Nos IIIA and IIIB, while further details are given in the table on the top of the next page.

Year.	Tenths of an inch.
1862-63 ...	100
1863-64 ...	149
1864-65 ...	90
1865-66 ...	23

Chapter I.

Descriptive.

Rainfall, temperature and climates.

Meteorological statistics.

Month.	Average, 1867 to 1877.			
	Mean.			Total monthly rainfall.
	Monthly temperatures.	Daily range.	Humidity.	
January	55·6	30·1	49	·28
February	61·1	29·4	46	·29
March	73·6	30·9	39	·39
April	81·2	35·0	28	·34
May	91·7	34·5	28	·38
June	97·5	33·4	33	·34
July	94·9	25·6	40	1·72
August	92·1	26·8	46	·9
September	89·1	33·9	41	·73
October	77·6	32·7	38	·14
November	67·5	33·7	30	·09
December	57·8	31·4	48	·55

Disease.

The district is certainly a healthy one. Cholera in an epidemic form is unknown; but small-pox is rather frequent and fatal. The prevailing sickness is fever, which is very general from August to the end of October. It is very difficult to shake off entirely, but is not often fatal. Tables Nos. XI, XIA, XIB, and XLIV give annual and monthly statistics of births and deaths for the district and for its towns during the last five years, while the birth and death rates since 1868, so far as available, will be found in Chapter III for the general population and in Chapter VI under the heads of the several large towns of the district. Table No. XII shows the number of insane, blind, deaf-mutes, and lepers as ascertained at the Census of 1881, while Table No. XXXVIII shows the working of the dispensaries since 1877.

CHAPTER II.

HISTORY.

Chapter II.

History.

Early Hindú history.

The antiquities of the district are fully discussed by General Cunningham in his *Ancient Geography of India*, pages 219 to 241, and in Vol. V of his *Archæological Survey Reports*, pages 111 to 136. It appears probable that the original name of the city now known as Mooltán, was Kasyapapura or Kassappur. This name is said to be derived from Kasyapa, father of the Adityas and Daityas, the Sungods and Titans of Hindu mythology, who "according to the traditions of the people" was the founder of the city. The name of Múlasthánapura, of which probably the modern name is an abbreviation, is the name under which the city is mentioned in the 7th century by the Chinese pilgrim Hwen Thsang, and is the only name known to the earliest Arab geographers of India; but other designations occur in Sanscrit literature, and among them that of Kasyapapura. The tradition which asserts this to be the original name of the city, is borne out by the probable identification of Mooltán with the *Kaspapuros* of Hecatœus, the *Kaspaturos* of Herodotus, and the *Kaspeira* of Ptolemy. By the latter writer Kaspeira is described as situated at a bend on the lower course of the *Rhuadis* or Rávi, just above its junction with the *Sandobág* or Chandrabhága (Chenáb). This position agrees almost exactly with that of Mooltán, which, as has just been described, lies on the old bank of the Rávi immediately above its former point of junction with the Chenáb. The identification therefore appears unavoidable; and is important not merely from an antiquarian point of view, but as "establishing the fact that "Mooltán or Kaspeira in the territory of the Kaspeiræi, whose dominion "extended from Kashmír to Mathura, must have been the principal "city in the Punjab towards the middle of the second century of the "Christian era."

Derivation of name Mooltán.

Some five centuries earlier the city figures prominently in the story of Alexander's invasion of India as the principal town of the Malli. The coincidence between this name and that of Mooltán has led to an obvious suggestion that the name of the tribe is preserved in that of the city. The ancient form of the latter would in this case be Málisthán, from which the modern Mooltán would be an easy abbreviation. This derivation, however, does not appear to find favour with General Cunningham, who affirms the name of Mooltán to be a corruption of *Múla-sthána-pura*, which he translates "City of the Temple of the Sun," an epithet derived from the worship of the Sun for which the city was once famous. *Múla*, which originally means "root" or "origin," he infers to have been used metaphorically to mean "ray,"

Chapter II.
History.
Derivation of name Mooltán.

and hence applied as "an epithet of the Sun as the god of rays." For this theory he finds confirmation in the fact that others of the names under which the city is mentioned in Sanscrit literature can be shown to have their derivation from designations of the Sun.* The worship, indeed, of the Sun forms the prominent feature in almost every mention made of Mooltán in Sanscrit writings. The Bhavishya Purana and Hwen Thsang mention a golden statue of the Sun: but the Arabic writers speak of the principal idol as composed of no more valuable material than wood,† representing that it was covered with a red skin, and adorned with two rubies in the place of his eyes. Muhammad Kásim left the idol uninjured with a view to the profit to be derived from the offerings made to it; but in order to show his horror of Indian superstition, he attached a piece of cow's flesh to its neck.‡ Al Biláduri says of the idol that it was a representation of the prophet Job or Ayub, his error being probably due to an Arab misreading of Aditya, as the name is correctly given by Al Birúni. The idol was allowed to maintain its position during the whole period of the supremacy of the Kaliphate; but, according to Al Birúni, when the Karmatians became masters of Mooltán, it was broken in pieces and the attendant priests massacred, the temple, which was situated on an eminence, being at the same time converted into a mosque. The Karmatian mosque was abandoned when Mooltán was taken by Sultan Mahmúd, in favour of the old mosque erected by Muhammad Kásim and his successors; and subsequently the idol of the Sun was again set up§ in its ancient place, where it remained until the temple, according to General Cunningham,‖ was destroyed by Aurangzeb, who erected a mosque in its place.

Alexander's campaign against the Malli.

Returning to the invasion of Alexander, in connection with which the first historic mention occurs of Mooltán, we find from the account give by Arrian and other historians, that Alexander on commencing his march southwards from Nikœa on the Jhelum, was first opposed by the tribe of Malli. Pausing on the borders of their country, immediately below the junction of the Jhelum and Chenáb (Hydaspes and Akesines), Alexander despatched Kraterus down the right bank of the river, having with him the elephants and a force of infantry and mounted bowmen, the ships under Nearchus proceeding by river three days ahead. The remaining force he divided into three bodies: Hephaistion was to lead the advance guard following the course of the river, and Ptolemæus was to follow after an interval of eight days. He himself proceeded inland against the Malli. The whole force was to re-unite at the junction of the Chenáb and Rávi. Alexander started from the junction of the Jhelum and Chenáb five days after the departure of Hephaistion, marching through a desert country. On

* The other names are *Hansapura*, *Bhágapura*, *Sambapura*, *Prahladpura* *Adyasthana*. For General Cunningham's remarks upon them see "Ancient Geography of India," pp. 232-36. Al Masudi, one of the early Arab geographers, translates Mooltán "boundary of the house of gold." The same writer speaks of the idol for which the city was famous as "also known by the name of Mooltán." Elliot, Hist. Ind., I., p. 23.

† A vast quantity of gold is said to have been found by Muhammad Kásim in a chamber *beneath* the idol.

‡ Elliot, Hist. Ind., I., p. 469.

§ Probably under the Sumrá dynasty, see below.

‖ Anc. Geog. I., p. 235.

Alexander's campaign against the Malli.

the first day he encamped near a small stream, about a hundred stadia from the Chenáb. Here he allowed a short time for rest and refreshment, and directed his men to fill their vessels with water; then hastening onwards, "after a march of about 400 stadia lasting the "remainder of that day and the whole night, he arrived at daybreak "at a city in which many of the Malli had sought a refuge."*

General Cunningham identifies the stream at which Alexander halted with the Ayak, a hill stream now dry, but of which the bed is still traceable in the Jhang district below the site of Sángala, and again for several miles to the east of Shorkot. The town he identifies with Kot Kamália, in the district of Montgomery. General Cunningham thus gives his reasons for these identifications †:—

"The small rivulet here mentioned I believe to be the lower course of the *Ayek* river, which rises in the outer range of hills, and flows past Siálkot towards Sángala, below which the bed is still traceable for some distance. It appears again 18 miles to the east of Jhang, and is finally lost about 12 miles to the east of Shorkot. Now somewhere between these two points Alexander must have crossed the *Ayek*, as the desert country which he afterwards traversed lies immediately beyond it. If he had marched to the south he would have arrived at Shorkot, but he would not have encountered any desert, as his route would have been over the *khádar*, or low-lying lands in the valley of the Chenáb. A march of 46 miles‡, in a southerly direction, would have carried him also right up to the bank of the Hydraotes, or Rávi, a point which Alexander only reached, according to Arrian's narrative, after another night's march. As this march lasted from the first watch of the night until daylight, it cannot have been less than 18 or 20 miles, which agrees exactly with the distance of the Rávi opposite Talamba from Kot Kamália. The direction of Alexander's march must, therefore, have been to the south-east; first to the Ayek river, where he halted to refresh his soldiers, and to fill their water vessels, and thence across the hard clayey and waterless tract called *Sandar bár*, that is, the *bár* or desert of the *Sandar* or *Chandra* river. Thus the position of the rivulet, the description of the desolate country, and the distance of the city from the confluence of the rivers, all agree in fixing the site of the fortress assaulted by Alexander with Kot Kamália."

Proceeding immediately to the assault of the town, Alexander despatched a body of cavalry under Perdiccas towards "another town" into which a large body of Indians had fled for safety. This town General Cunningham believes to have been the modern Harappa,§ which lies 16 miles to the east-south-east of Kot Kamália, and on the opposite high bank of the Rávi. The inhabitants fled at his approach, and took refuge in the marshes, which then, as now, abounded in the lowlands of the Rávi bed. Alexander meanwhile prosecuted his attack upon Kot Kamália, and succeeded in carrying by assault first the town and then the citadel. That same night,

* Arrian, vi. 6.

† Anc. Geog., I., p. 209.

‡ It should be remarked that General Cunningham translates the passage of Arrian quoted in these words: "He continued his march the remaining part of that day and all night, and early next morning arrived at a city, whither many of the Mallis had fled for refuge, and this was about 400 stadia distant from the Akesines." The translation given in the text is, it is submitted, more correct. The distance "400 stadia" seems to refer to the length of the night's march from the stream, not to the whole distance between the town and the Chenab.

§ Anc. Geog., I., p. 210.

Chapter II.

History.

Alexander's campaign against the Malli.

"having allowed his soldiers time for food and rest, he set forward "again about the first watch; and having made a long night march "arrived at daybreak upon the Hydraotes (Rávi). Here he learnt "that most of the Malli had already crossed the river, but lighting "upon some who were in the act of crossing, he slaughtered many "of them at the ford, and at once passing over the river by the same "ford, pursued those who had gained the farther side, killing many "of them and taking others alive. The greater part, however, "escaped to a small town strongly placed and fortified." General Cunningham identifies this place with the modern Talamba. "A whole night's march," he says, "of eight or nine hours, could not "have been less than twenty-five miles, which is the exact distance of "the Rávi opposite Talamba from Kot Kamália . . . . . . The "account of Curtius agrees with that of Arrian. . . . . Diodorus "relates the same story of a people named Agalassæ.* . . . All "these accounts evidently refer to the same place which was a strong "fort near the left bank of the Rávi. This description would also "apply to Harappa; but I have already shown that Harappa was most "probably the city against which Perdiccas was detached; besides "which it is not more than 16 miles distant from Kot Kamália. "Talamba, on the contrary, fulfils all the conditions; and is also on "the high road to Mooltán, the capital of the Malli against which "Alexander was then proceeding." Detaching a force under the command of Peithon to take the town, Alexander marched against a "certain city of the Brachmani," to which he heard that others of the Malli had escaped. Here a fierce resistance was offered. The inhabitants leaving the town took refuge in the citadel, and when the success of Alexander's assault became apparent, many setting fire to their houses perished in the flames, while the remainder of the garrison fell sword in hand upon the walls. The slain, according to Arrian, numbered 5,000. A ruined fort and town near the modern village of Atári, 20 miles to the south-west of Talamba, and on the road between that place and Mooltán, have been suggested as representing this city of the Bráchmani, or Bráhmans. "The remains "consist of a strong citadel, 750 feet square and 35 feet high, with "ditch all round it, and a tower in the centre 50 feet high. On two "sides are the remains of the town forming a mound 20 feet high and "1,200 feet square, the whole being a mass of ruins 1,800 feet in length "and 1,200 feet in breadth. Of its history there is not even a "tradition, but the large size of the bricks is sufficient to show that it "must be a place of considerable antiquity. The name of the old city "is quite unknown. The adjacent village is of recent origin."† After remaining for a day at the city of Bráhmans to rest his troops, Alexander again pushed on, but found the towns of the Malli all deserted. Halting therefore for another day, he sent back a small force to the river with orders to scour the jungle on its bank,‡ and himself marched upon "the greatest city of the Malli," which is identified almost beyond a doubt with the modern Mooltán. The city, as will be hereafter described, was originally situated upon two islands of

* This name General Cunningham admits to be puzzling. Diodorus does no mention the name of Malli until later.

† General Cunningham.

‡ Arrian, vi. 8.

Chapter II.

History.

Alexander's campaign against the Malli.

the Rávi, the river flowing through the middle of the town and also protecting it on either side. The Malli, on hearing of the approach of Alexander issued from the city and took up a position apparently on the western bank of the Rávi.* The Greeks, however, appear to have approached the city from the east.† Arrian's narrative proceeds as follows: "As soon as Alexander heard (of the movement of the "Malli), he advanced with his whole force of cavalry towards the "river, ordering the infantry to follow. Arriving on the river he "saw the enemy in position on the opposite bank, and dashed "instantly into the ford followed only by his cavalry. The Indians, "seeing him already in midstream, began to draw back hastily but "in unbroken order; when, however, they saw horsemen only in "pursuit, they turned and offered a resolute defence, being in number "about 50,000. Alexander seeing the compactness of their ranks, "and having no infantry, kept his cavalry wheeling round them, but "avoided coming hand to hand . . . . But when . . . some "light armed foot-men came up and the main body of infantry was "seen at no great distance, the Indians . . . at once broke and "fled with precipitation into a neighbouring city of the greatest "strength."‡ Alexander pursued and cut off many of them before they reached the city, but did not press the attack that day owing to the fatigue of his troops. On the following day he divided his force into two parties, and led one of them in person to the assault. The other was commanded by Perdiccas. The Indians, without waiting to be attacked, abandoned the outer walls and retired to the citadel. In the attack which followed, Alexander, heading the assault with impetuous courage, was for a time left alone upon the summit of the walls, and fell dangerously wounded by a javelin in the throat; but succour soon arriving, the citadel was carried, and the Greeks, enraged at the mischance of their leader, gave no quarter, but put to the sword every soul, regarding neither sex nor age. Meanwhile the main body of Alexander's army was encamped at the confluence of the Rávi and Chenáb, which then took place about 10 miles below Mooltán. Here it was shortly rumoured that Alexander's wound was fatal, and a panic arose among the soldiers, which would not be allayed until Alexander, breaking up his camp before Mooltán at the earliest moment his wound would allow, dropped down the Rávi by boat and showed himself openly among them.§ Here at the confluence of the rivers

* Ar. vi., 8.

† Alexander crossed at Talamba, and we hear nothing of his crossing back again; Atári is also on the east bank. As, however, on reaching Mooltán he saw the Malli drawn up on the *opposite* side of the river, Arrian must be referring to the *western* branch when he says that the Malli crossed the river.

‡ The absence of the articles is puzzling. The reference must be to *one-half* of the city of Mooltán, probably the western half, which still contains the citadel or fort. The other half they apparently abandoned.

§ In the persistence of this panic, coupled with the close proximity of Mooltán to the old confluence of the rivers, lies the only difficulty in accepting General Cunnigham's identification of Mooltán as the principal city of the Malli. If the identification is correct (and it seems scarcely possible to doubt it), the two camps must have been so close together that one would hardly have believed it possible for such a panic to hold ground for more than a few hours. It may also be noted that in marching down the river the main army must have passed almost under the walls of Mooltán, which is only about five miles in a straight line from the nearest point on the Chenáb.

Chapter II.

History.

Alexander's campaign against the Malli.

he received envoys from the Malli and Oxudrakæ, tendering the complete submission of their tribes. Then, leaving Philip as "Satrap," he proceeded down the Chenáb to its junction with the Indus.

Of the fate of Philip, Alexander's Satrap at Mooltán, we have no certain information. It is tolerably certain, however, that not many years after the departure of Alexander, the Hindustáni Kingdom of Magadha was extended to the Indus. For when Seleucus, founder of the Syrian dynasty of the Seleucidæ, sent ambassadors into India, it was to the court of Sandracottus of Magadha (Chandra Gupta, grandfather of Asoka) that they went, and no mention is made of any intermediate kingdom. Whether Philip was more successful than the heirs of Porus and Mophis, whom Alexander left in possession of the upper Panjáb, in resisting the arms of Magadha cannot be accurately stated; but the absence of any mention of him or his province by the Greeks who found their way to the court of Chandra Gupta and his descendants, is a powerful argument against the probability of their survival. It is more than probable, however, that Greek influence again extended to Mooltán under the Bactrian or Bokhariot Kings, who conquered the Panjáb probably during the second century of the Christian era. It is to the period of these sovereigns that the Greek or semi-Greek coins found in the cities of the Panjáb are to be attributed.

Arabs in Sindh and Mooltán; Rája Chach, A.D. 631.

The next indication of events in the early history of Mooltán is derived from the writings of early Arab geographers,* in which Mooltán figures as the capital of an important province of the kingdom of Sindh. At the time when the Arabs first penetrated to the valley of the Indus, the country was ruled by Chach, a Bráhman, who had usurped the throne on the death of Sahási Rái, the last monarch of a dynasty bearing the name of Rái. With regard to this dynasty no detailed information is extant.† The *Chachnáma*, however, relates that Siharas, father of Sahási Rái, had divided his kingdom into four provinces, the most northern of which had its capital at Mooltán, and extended as far as the borders of Kashmir.‡ The date of Chach's usurpation is fixed by Sir H. Elliot as A.H. 10, corresponding to A.D. 631.§ Having seized upon Alor, the capital of the Rái dynasty, he marched nothwards into the province of Mooltán which was held by Malik Bajhrá, a relative of Sahási Rái. Crossing the Beas which then had an independent course, he defeated the son of Bajhrá, and having occupied the fort of Sikka, on the Rávi opposite Mooltán, crossed over to the siege of the capital city. After a stout resistance Bajhrá retired within the walls and having made an unsuccessful application for help to the Rája of Kashmir, at last surrendered upon honourable terms. From Mooltán, Chach

Diodorus and Curtius state the city at which Alexander was wounded to have been a city of the Oxudrakæ, but Arrian expressly and elaborately refutes this version of the story. Strabo agrees with him in assigning the city to the Malli.

* Collected in Elliot's "History of India," vol.

† The *Chachnáma* mentions the names of three kings—Sahási Rái, his father Síharas, and his grandfather Sahási Rái I; the *Tuhfatu-l-kirám* mentions two additional names. See Elliot, "Hist. Ind.," I., p 405. Another Arab history—the *Majma-i-wáridát*—assigns to the dynasty an antiquity of two thousand years.

‡ *Chachnáma*. Elliot, "Hist. Ind.," I., p. 139. Sahási Rái's capital was at Alor.

§ "Hist. Ind.," I., p 414

Chapter II.

History.

Arabs in Sindh and Mooltan; Rája Chach, A.D. 631.

proceeded to subdue Brahmapur, Kahior and Ashahár, cities of the Mooltán province, and then marching northwards, and penetrating apparently into the lower Himalayas, there fixed the boundary between his kingdom and that of Kashmir.* Chach died in A.H. 51, and was succeeded by his brother Chandar, who is said to have been a zealous adherent of the Buddhist faith.† Chandar was succeeded in A.H. 59 by his nephew Dáhir, son of Chach. The Chinese pilgrim Hwen Thsang visited Mooltan during the reign of Chach.‡

Muhammadan invasions, A.D. 638.

The first appearance of the Muhammadans in Sindh took place before the close of the reign of Chach. In A.H. 38, an adventurer named Haras crossed the frontier, and made a successful and profitable raid upon Sindh, but repeating the attempt four years later, lost his life.§ In A.H. 44 (644 A.D.) Mohálib, afterwards an eminent commander in Persia and Arabia, was detached from the army sent in that year into Kabul, and succeeded in penetrating to Lahore and Mooltán.‖ Other expeditions followed, by which the country was plundered, but no permanent occupation was attempted. At length, during the reign of Rája Dáhir, a ship bearing presents¶ for Kaliph Walid, from the King of Ceylon, was plundered at the entrance of the Persian Gulf by some ships belonging to the town of Debal.** Hujjáj, the Kaliph's Persian Viceroy, called upon Rája Dáhir for restitution, but the latter declined compliance on the ground that Debal was a powerful State, and not subject to his authority.†† A small force was then sent against Debal but was defeated; the same fate met a second expedition. Hujjáj now thoroughly aroused, sent a formidable army ‡‡ under the command of his cousin and son-in-law Muhammad Kásim.§§ Debal fell after a vigorous siege, and Muhammad Kásim passing inland defeated the son of Rája Dáhir, and pressed on to the neighbourhood of Alor, where he was met by the Rája in person. In the battle which ensued Dáhir was defeated and killed, and his capital fell into the hands of the conqueror. After a short stay at the capital Muhammad Kásim pressed on towards Mooltán. The governor of this province, Bajhrá Táki, a grandson of the Bajhrá who had opposed Chach, nothing daunted by the defeat of Dáhir, determined upon a resolute defence. Placing his nephew in command of Askandra or Askalanda, a stronghold upon the north bank of the (old) Beas,‖‖ he himself awaited the invaders at Mooltan.

* *Chachnáma*. Elliot, "Hist. Ind.," I., p. 144.

† *Ibid* 152-53.

‡ There is a considerable difficulty here, the account of Hwen Thsang as to the kingdoms of the Punjab clashing with those of the Sindh historians.

§ *Al Biláduri*. *Ibid*, p. 116.

‖ *Al Biláduri*, and Elphinstone "Hist. Ind.," p. 306.

¶ Or according to *Al Biláduri* some Muhammadan girls, orphan daughters of some merchants who had died in Ceylon.

** Probably Karáchi. Elliot "Hist. Ind.," I., p. 374.

†† Elphinstone, p. 307. Elliot, p. 119. Ferishta, p. 403. (Briggs).

‡‡ Elphinstone following Ferishta says "a regular army of 6,000 men." According to the Arab authorities the force consisted originally of 6,000 picked cavalry, 6,000 armed camel riders, and a baggage train of 3,000 camels, and was still further reinforced in Makrán. Five catapults with the necessary ammunition were also sent by sea.

§§ Biláduri calls him Muhammad bin (son of) Kásim.

‖‖ Identified by General Cunningham (Anc. Geog., I. p., 243) with the town of Alexandria Ucha, the modern Uchh, founded by Alexander at the confluence of the

Chapter II.

History.

Muhammadan invasions, A.D. 631.

Askandra held out bravely and kept Kásim at bay for seven days, when at last the garrison retired during the night to the fort of Sikka on the south bank of the (old) Rávi opposite Mooltán. Here again the Muhammadans met with a stubborn resistance, and suffered considerable loss; but after seventeen days more fighting, Bajhrá retired across the Rávi into Mooltán. The city held out for two months,* during which there was constant fighting before the walls, and distress began to be felt in the Muhammadan camp.† The fall of the city is differently related by Al Biláduri and the author of the *Chachnàma.* According to the latter authoritya mine was dug at a place pointed out by a traitor, "towards the north on the banks of a river," by means of which "in two or three days the walls fell down and the fort was taken." The *Fatùh ul-Buldàn* of Al Biláduri relates that "there came forward a man who "sued for quarter and pointed out to them an aqueduct, by which the "inhabitants were supplied with drinking water from the river of "*Basmad.* It flowed within the city into a reservoir like a well, which "they call a *tàlah.* Muhammad destroyed the watercourse, upon which "the inhabitants, oppressed with thirst, surrendered at discretion." ‡ Both accounts agree in the sequel. The garrison was put to the sword, and the city plundered, but quarter was given to noncombatants. In a chamber hidden beneath the great idol of Mooltán a rich treasure was found, and the spoil was further augmented by contributions levied from the citizens.§ The great idol was allowed to retain its place with a view to the revenue to be derived from pilgrims attending the shrine; but the creed of Islám was forced upon the people, and a mosque was erected out of the proceeds of the spoil. After a short stay at Mooltán, Muhammad Kásim marched northwards to the boundary of Kashmír, and there renewed the border line fixed a few years previously by Chach. He then turned his attention to the invasion of Kanauj, and had already advaced some marches eastwards when, according to the well known story preserved by several historians of the period, he received an order from the Kaliph for his own immediate execution. The story is thus related by Elphinstone: "Among the numerous female captives in Sindh were two daughters "of Rája Dáhir, who, from their rank and their personal charms, were "thought worthy of being presented to the Commander of the Faithful. "They were accordingly sent to the Court and introduced into the "Harem. When the eldest was brought into the presence of the "Kaliph, whose curiosity had been stimulated by reports of her "attractions, she burst into a flood of tears, and exclaimed that she "was now unworthy of his notice, having been dishonoured by Kásim "before she was sent out of her own country. The Kaliph was moved

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Panjáb rivers. Uchh, however, is on the south or eastern bank of the Panjnad, whereas the *Chachnàma* distinctly records that Kásim crossed the Biás before reaching Askalanda.

* *Chachnàma* and other authorities. Elphinstone's account is incomplete. He says: "One more desperate stand was made at Ashkandra, after which Mooltán seems to have fallen without resistance."

† "Provisions became exceedingly scarce in the camp, and the price even of an ass's head was raised to 500 *dirams.*"—*Chachnàma.*

‡ Elliot p. 123.

§ Kásim's army at Mooltán comprised "about 50,000 horsemen, with munitions of war."—*Chachnàma.*

Chapter II.

History.

Muhammadan invasions, A.D. 638.

"by her beauty, and enraged at the insult offered to him by his servant; "and giving way to the first impulse of his resentment, he sent orders "that Kásim should be sewed up in a raw hide, and sent in that "condition to Damascus. When his orders were executed, he produced "the body to the princess, who was overjoyed at the sight, and exult-"ingly delared to the astonished Kaliph that Kásim was innocent, but "that she had now revenged the death of her father and the ruin of "her family." Muhammad Kásim was succeeded in the command of the Indian campaign by Yazid, and he in turn by Habíb, son of Mushallab. Meanwhile however Jaishia, the son of Dáhir, had returned to Sindh and established himself at Brahmanabad.* This same Jaishia appears a few years later, during the reign of Kaliph Omar, to have embraced the Muhammadan creed, and on acknowledging the supremacy of the Kaliphate, to have been confirmed in the possession of his territories. Shortly afterwards, however, he was attacked by a new governor of Sindh, Junaid, son of Abdul Rahmán, and was defeated, captured, and put to death. Then followed a century and a half during which the Arab government exercised a doubtful supremacy over Sindh, and presumably over its province of Mooltán. Arab governors were sent by the Kaliph, whose capital was at Mansúra, a new town erected by them on or near the site of Brahmanabad. That their influence, however, was not always supreme, may be inferred from the records of constant warfare occurring in the pages of the native historians, and the fact that at one time a general relapse into idolatry is said to have taken place.†

Arab goverment in Sindh, 700 to 850 A.D.

Mooltán independent under Arab rulers, 871 A.D.

During the decline of the Kaliphate, its influence naturally waned in the distant province of Sindh; and the connection was finally brought to a close about the middle of the third century, of the *Hijri* era. In A.H. 257 (A.D. 871), Kaliph Mu'tamad conferred upon Yakúb ibn Lais the government of Sindh, Balkh, Tukháristán, in addition to that of Sijistán and Kirman, with which he had been already invested. Shortly after this event, probably upon the death of Yakúb ibn Lais, which took place in A.D. 879, two independent kingdoms were established in Sindh, having their capitals at Mansúra and Mooltán, both of which attained a high degree of power and prosperity.‡ Mooltan was visited by the geographer Masúdi in A.D. 915-6 (303-4 A.H). He describes the Amír of Mooltan as an Arab of the noble tribe of Koraish, named Abú-l-Dalhat al Munabba, in whose family the government was said to have been hereditary "nearly from the beginning of Islám." This Amír was a powerful monarch, having a paid army at his command, and ruling a wide dominion, of which Kanauj is said to have been a province, extending in one direction to the frontier of Khurásán, and in the other to Alor, from which point the kingdom of Mansúra commenced. The city, Masúdi describes as "one of the strongest frontier places of the Musalmáns," and as surrounded by 120,000 hamlets. The Temple of the Sun was still an object of native pilgrimage, to which the people resorted from the most distant parts of the continent to make their offerings of money, pearls, aloe-wood, and perfumes. From this source

* Supposed to have been on a site now marked by extensive ruins, 47 miles north-east of Haidarábád. Cunningham, Anc. Geog., I., p. 272.

† Al Biládurí. Elliot, Hist. Ind., I., p. 126.

‡ Elliot, Hist. Ind., I., p. 454.

Chapter II.

History.

Násir-ud-dín Kubácha, 1206-1224 A.D.

in the direction of Sirsa and Hissár. The Sumras were reduced by him to a small tract of country in the neighbourhood of Tatta.* Násir-ud-dín succeeded in holding his own for upwards of twenty years, defeating several attempts which were made against him from the direction of Ghazni, but at length in A.D. 1224 was drowned in the Indus, in an attempt to escape by boat from his capital, in which he was besieged by Shams-ud-dín Altamish, King of Delhi.

Second independence of Mooltán.

From this period Mooltán remained subject to the Delhi empire, until its collapse after the disastrous invasion of Tamerlane in A.D. 1398. At this conjuncture, the province being left without a governor, and having suffered severely from predatory inroads from the west, "the inhabitants of Mooltán, seeing the necessity of having "a leader to direct their exertions and to protect the country from "their troublesome neighbours, assembled in the year 847 (A.D. 1442), "and selected one Shekh Yúsuf, a man of learning, wisdom, and high "character, of the tribe of Koresh, to be ruler over the people of "Mooltán and Uch."† Shekh Yúsuf set himself vigorously to the task of restoring order, but after a reign of seventeen years was deposed by an adventurer, named Rai Sehra, of the tribe of Langa, who seizing the person of Shekh Yúsuf by an act of treachery, usurped the kingly power under the title Kutb-ud-dín Mahmúd. The people submitted with indifference to the change of rulers.‡ Kutb-ud-dín Langa died in A.D. 1469, and was succeeded by his son Hussain Langa, a man of great learning and a patron of science and literature. He was also a man of action, and carried his arms both northwards and westwards, § adding considerably to the extent of territory inherited from his father. Meanwhile Shekh Yúsuf, whom Kutb-ud-dín Langa had deported to Delhi, had prevailed on the emperor Bahlol Lodi to interfere on his behalf; and, during the absence of Hussain Langa on one of his expeditions, an army was sent from Delhi against Mooltán. Hussain, however, was able to reach his capital in time to give battle before the walls, and completely defeated the invading force. On the death of Bahlol Lodi (A.D. 1488), Hussain sent an embassy to Delhi, which was well received by the new emperor Sikandar Lodi. He died in A.D. 1502, after having for a time abdicated in favour of his son, who was murdered after a short reign. His grandson Mahmúd Khan was then raised to the throne by Jám Báyazíd, a refugee from Sindh, who had become Minister to Hussain and held in *jágír* the district

Langa dynasty, 1445 to 1526 A.D.

* Ferishta, Brigg's, p. 414.

† Ferishta, iv., p. 380. Shekh Yúsuf was an ancestor of the present Makhdum Shah Mahmúd Koreshi.

‡ Ferishta assigns only two years to the reign of Shekh Yúsuf, but the Ain Akbarí, which assigns 17, is probably correct, as his deposition occurred during the reign of Bahlol Lodi, who did not ascend the throne till 1453.

§ His acquisitions beyond the Indus included the country from Sítpur northwards to the towns called in Briggs' Ferishta Kotgirvur (? Kot Karor) and Dhunkote. This country was made over to Beluch immigrants; see Gazetteer of Dera Gházi Khán. According to Ferishta, Hussain Langa also took the forts of "Sheevur" and "Hot," situated apparently in the Rechna and Chaj Doabs Sheevur may possibly be Shor or Shorkot. Its inhabitants are represented as expecting aid from Khusháb, then under Amír Sayad Khan, and as finally escaping to "Bheemra," which may possibly be a misreading for Bhera. "Hoot" was held by Malik Kází Khan Ghakkar, nearly related to Amír Sayad Khan.

Chapter II.

History.

Langa dynasty, 1445 to 1526 A.D.

of "Sheevur"* beyond the Rávi. The same Jám Báyazíd, however, a few years later was driven into revolt, and retiring to his *jágír* tendered his allegiance to Sikandar Lodi. By the interposition of Daulat Khán, Sikandar's governor of the Punjab, the Rávi was fixed as the boundary of the Mooltán kingdom, Jám Báyazíd thenceforward holding "Sheevur" as a fief of Delhi. Mahmúd died† in 1526, the year of Bábar's successful invasion of India. Having overthrown Ibrahím Lodi at Pánipat, Bábar appears to have corresponded with Hussain Arghún, at this time ruler of Sindh, and to have authorized him to seize Mooltán in his name.‡ After a stubborn resistance prolonged during fifteen months by Shúja-ul-Mulk, guardian of the infant son of Mahmúd, the city was carried by assault. For a short time the province remained dependent upon Sindh, and was then made over to Humayún. In A.D. 1540-43, it passed with the Punjab into the hands of Sher Shah, who succeeded for a time in expelling the new dynasty, but was peaceably re-occupied by Akbar shortly after the restoration of his father in 1555.

Acquisitions by the Mughals, 1555 A.D.

Mooltan under Mughal Empire, 1555 to 1738 A.D.

Under Akbar and his successors, Mooltán was capital of one of the *súbas* or provinces into which the empire was divided. The province included the three districts, or *sarkárs*, of Dipálpur, Mooltán, and Sakkar, and was sub-divided into eighty-eight *parganas*.

The following are in the present Mooltán district :—

Fattehpur ... Kahror ... Khai Buldi § ... Dunyapur ...	In Duába Bait Jalandhar, now in *tahsíl* Mailsi.
Adamwáhn and probably Jalalabad and Shergarh‖ and Rajpur ¶	In same Duába, now in *tahsíl* Lodhran.
Talambah ...	In Duába Bári, now *tahsíl* Sarai Sidhu.
Mooltán city ... Mooltán suburbs ... Islámpur ... Shah Alampur ...	Duába Bári *tahsíl* Mooltan, Sarai Sidhu and Shujabád.
Khai Buldi ...	Duába Bári, now *tahsíl* Mailsi.

Kahror and Fattehpur also appear as separate *parganas*, evidently across the Sutlej, and therefore referring to lands of those *parganas* now in Baháwalpur. In the same way Íslámpur appears in the Sind Ságar Duáb.

The Nawábs of Mooltán,** 1738 to 1818 A.D.

In the year of Nádir Shah's invasion of India, A.D. 1738-39, when the Mughal power was becoming weak in the distant provinces, one Záhid Khán, a Sadozái Afghán, was appointed by the Emperor Muhammad Shah to be governor of Mooltán with the title of Nawáb.

* Probably Shor (Shorkot); "Sheevur" would be an easy misreading from Shor in the Persian.

† The *Tárkhán-náma*, or family history of the Arghúns of Sindh, says he was poisoned.

‡ Ferishta. The circumstance is not mentioned by the *Tarkhán-náma*, which, however, records that after the conquest, Hussain Arghún sent messengers to Bábar, offering Mooltán to him.

§ The Khái of *tahsíl* Mailsi, on the old Bías, therefore appearing twice, once in each Duáb.

‖ Perhaps the present Jalálpur and Sherpur. But v. the Khichis. The *zamíndárs* of Shergarh, according to the Ayin Akbari, were Khichis and Johiyas. Probably therefore in Mailsi.

¶ Perhaps the Rajabpur, near Lodhran, *cf* p. 76.

** The following account is mainly an abridgment of the history of the family given in the "Punjab Chiefs," pp. 175-89.

Chapter II.

History.

Husain Khán.

The founder of the family fortunes was one Husain Khán* ex-chieftain of the Abdáli tribes living between Kandahár and Herát. He had been expelled from Kandahár when that city was taken by Sháh Abbás II of Persia, and in 1649, on the return of Aurangzíb from his unsuccessful attempt to recover the city, accompanied that prince to India. The Emperor Sháh Jehán bestowed estates upon him, first in Siálkot, and then at Rangpur in the modern district of Muzaffargarh; and he afterwards served as commander of a body of horse which he obtained permission to raise. Shortly after the accession of Aurangzíb he fell into disgrace, and being banished from court, died without issue at Rangpur. He was succeeded in his estates by Ináyat Khán, son of his brother Alá-dád-khán. Ináyat Khán left a son, Sher Muhammad Khán, but he proving to be nearly imbecile, the conduct of the family affairs passed to Ábid Khán, younger brother of Ináyat Khán. On the death of Abid Khán, (about A.D. 1725), a fierce family dissension ensued, resulting in a reference to Hayát Khán, then Governor of Mooltán, by whom this Záhid Khán, son of Abid Khán, was nominated to the chiefship. From beginning to end the career of this dynasty was a hard struggle for existence, first against rival nominees to the governorship, and then against the Sikhs. In this struggle the Nawábs had the support of their kinsmen, the Afgháns, and of the Nawábs of Baháwalpur. On every invasion from Kábul they were reinstated in their government, and almost as soon as the invading army retired they were swept away.

Zahid Khán, 1738 to 1749 A.D.

Zahíd Khan was an able man, and a friend of Kamr-ud-dín, minister at Delhi, through whose interest it was that he received the appointment before described. He was at Delhi at the time of his advancement to the governorship of Mooltán, but at once wrote to his son Shakar Khán to assume the government. In this he succeeded, but not without a severe struggle with Ishák Khán, the governor in possession. In 1747 Ahmad Sháh Duráni (of the same family as Záhid Khán) invaded India, and advancing to Mooltán, confirmed his kinsman in the government; whereupon, after the defeat of Ahmad Khán in March 1748, supposing its interests to be betrayed, the Court of Delhi appointed Sháh Nawáz Khán, ex-governor of Lahore, to supersede Záhid Khán, Mír Manú being at the same time appointed to Lahore. Sháh Nawáz Khán, being resisted by Záhid Khán, applied for assistance to Mír Manú, who, instead of helping him, deputed Rája Kaurá Mal to take over the government. Kaurá Mal defeated Sháh Nawáz Khán, and was about to proceed against Záhid Khán, who had retired to Sítpur, when he was recalled to Lahore in consequence of a second invasion of Ahmad Shah. Mooltán was left in the hands of Shakar Khan, son of Záhid Khán, who had died in 1749. After the conquest of Lahore by Ahmad Sháh in 1752, Mír Manú, who was confirmed by the conqueror in his viceregency of the Punjáb, appointed one Alí Muhammad Khán his deputy at Mooltán. It was during his incumbency that Lahore fell into the hands of the Mahratta chief Ragoba (A.D. 1758). A Mahratta force was at the same time sent against Mooltán, which was captured almost without opposition, Alí Muhammad Khán taking to flight. The Mahrattas ruled

Shakar Khán, 1749 A.D.

* Grandson of Sado Khan, eponymous ancestor of the family.

with an iron hand, but were forced to retire in 1759, before the fourth invasion of Ahmad Sháh. One Khwája Yákút was now appointed governor, but Alí Muhammad Khán took up arms, and succeeded in expelling him. Ahmad Khán now wrote to Shújáa Khán, second son of Záhid Khán, appointing him Nawáb. For a time Alí Muhammad Khán submitted, but shortly found means to attack and depose his rival, whom he cast into prison, himself re-assuming the government. Ahmad Sháh, highly incensed at this act of defiance, marched upon Mooltán (A.D. 1767), and seized Alí Muhammad Khán and put him to death. He then returned to Kábul, leaving Shújáa Khán in possession of the government.

Chapter II.

History.

Shakar Khán, 1749 A.D.

In 1766 the province was overrun by the Sikhs of the Bhangí *misl* under Jhandá Singh, and after an indecisive conflict, Pákpattan was agreed upon as the boundary line between the Sikh and Afghán states. In 1771, however, Jhandá Singh again invaded Mooltan, but was obliged to retire after unsuccessfully besieging the city for a month and a half. About this time Shújáa Khán was superseded by Hájí Sharíf Khán Sadozaí, and he again by Hájí Sharíf Khán Taklú, otherwise known as Mirzá Sharíf Beg. A struggle ensued for the supremacy, in which Sharíf Beg called in the aid of Jhandá Singh, Shújáa Khán on the other hand being aided by the Dáúdputras of Baháwalpur. At first the Dáúdputras were successful, and carried Muzaffar Khán, son of Shújáa Khán, triumphantly into Mooltán. Jhandá Singh however, returning with a large force, retook the city, and kept it for himself (A.D. 1772). These rapid rises and falls of the Hájí Sharífs are alluded to in the couplet: *Hàjì Sharìf, na rabi, na kharìf*. Shújáa Khán escaped with difficulty to Baháwalpur, where he died in 1774. In 1777 his son Muzaffar Khán prevailed upon the chief of Baháwalpur to make an effort to recover the city, but the expedition was repulsed with loss. An army was then sent from Kábul, but was recalled before operations had well commenced. Muzaffar Khán now retired to Uchh, where he lived till 1779, when Timúr Shah, king of Kábul, marched with a large army to Mooltán and recovered it from the Sikhs, who capitulated after a siege of forty days.

Shújáa Khán, 1767 to 1772 A.D.

Muzaffar Khán, who was now installed as governor, was an energetic and able man, and though during a long tenure of power, lasting from 1779 till his death in 1818, he enjoyed but scanty leisure for works of peace, he succeeded in developing considerably the resources of his province. During the first ten years of his rule he was constantly harassed by the Bhangí Sikhs, who were at one time joined by Sáhib Khán Siál, of Jhang, and were on this occasion with difficulty repulsed. In 1790 he visited Kábul, remaining there for two years. On the accession of Zamán Sháh he was confirmed in his government, and when that prince invaded India, and the supremacy of the Sikhs for a time was shaken, he drove them out of Kot Kamáliá, which he made over to its hereditary rulers, the Rais of the Kharral tribe.

Muzaffar Khán 1779 to 1818 A.D.

In 1802 Ranjít Singh marched for the first time towards Mooltán. On this occasion the Nawáb came out to meet him thirty miles from the city, and Ranjít Singh retired after giving and receiving valuable presents. In 1806 Ranjít Singh again advanced upon

Ranjít Singh's invasion.

Chapter II.

History.

Ranjít Singh's invasion.

Mooltán, but on receiving a present of Rs. 70,000 was persuaded to retire. In the following year, however, at the instigation of Abd-ul-Samad Badozai, he made an attack in force upon the city. Part of the town was taken, but the fort held out against all his efforts, until on payment of a heavy ransom he agreed to raise the siege. After an interval, however, of three years, part of which Muzaffar Khán had spent in a pilgrimage to Mecca,* the attempt was renewed (A.D. 1810), and the siege this time was pressed with the utmost ardour. For some time the fort was bombarded, but without effect. Mining was then resorted to; but the besieged countermined with success, and blew up an important battery of the attacking force. A general assault was then tried, but the Sikhs were on two occasions repulsed with great loss. Provisions were now become very dear in the camp, and several leaders had been killed, while little or no impression had been made upon the citadel. Ranjít Singh was therefore compelled to raise the siege, accepting by way of ransom two-and-a-half lakhs of rupees, a sum which he had before rejected. Muzaffar Khán was next involved in war with Baháwalpur, and in a struggle with a rebellious dependant of his own, Mír Rajab, of the Rajbána tribe. By the Sikhs he was not molested until 1816, when a Sikh force marching into the province, a body of fanatics, led by Phulá Singh Akálí, made a sudden rush upon the citadel, and succeeded in gaining possession of some of its outworks. In the year following this assault, yet another army was sent into the province, and attacked the fort, but was repulsed and retired on payment of Rs. 10,000. These attacks were scarcely made in earnest; but the Mahárája was now collecting his strength for a great effort, having sworn that Mooltán, which had so often defied him, should yet be his. Accordingly, in January 1818 an army of 25,000 men, commanded by Mír Diwán Chand, marched from Lahore, and having taken Khángarh and Muzaffargarh beyond the Chenáb, appeared before Mooltán early in February. The city was at once captured, and the bombardment of the citadel commenced. "The Nawáb had a force of only 2,000 men, and the fort "was not provisioned for a siege, but he made a defence the like of "which the Sikhs had never seen before. Till the 2nd of June the "bombardment went on, and two large breaches had been made in the "walls, for the great Bhangí gun, the *Zam-Zam* of Ahmad Sháh "Duráni, had been brought from Lahore, and had been four times fired "with effect. More than one assault had been made by the Sikhs, but "they were repulsed, on one occasion with the loss of 1,800 men. The "gates were blown in, but the garrison raised behind them mounds of "earth, on which they fought hand to hand with the Sikhs. The "defenders of the fort were at length reduced to two or three hundred "fighting men, most of them of the tribe or family of Muzaffar Khán. "The rest had either been killed or had gone over to the enemy, for "they had been heavily bribed to desert their master, and many of "them were unable to resist the temptation. At length, on the 2nd "June, an Akálí, by name Sádhú Singh, determined to surpass what "Phulá Singh had done in 1816, rushed with a few desperate

Captured by Ranjít Singh, 1818 A.D.

* It was soon after his return that Mr. Elphinstone, on his way to meet Shújá-ul-Mulk at Pesháwar, visited Mooltán. Muzaffar Khán wished to tender his allegiance to the British Government.

Chapter II.

History.

Captured by Ranjít Singh, 1818 A.D.

"followers into an outwork of the fort, and taking the Afgháns by "surprise, captured it. The Sikh forces, seeing this success, advanced "to the assault, and mounted the breach at the Khizrí gate. Here "the old Nawáb, with his eight sons and all that remained of the "garrison, stood sword in hand, resolved to fight to the death. So "many fell beneath the keen Afghán swords, that the Sikhs drew "back and opened fire on the little party with their matchlocks. "'Come on like men,' shouted the Afgháns, 'and let us fall in fair "'fight;' but this was an invitation which the Sikhs did not care to "accept. There died the white bearded Muzaffar Khán, scorning to "accept quarter, and there died five of his sons. Zulfakár Khán, his "second son, was also wounded severely in the face; and two others, "Sarafráz Khán and Amír Bég Khán, accepted quarter and were "saved. Diwán Rám Díal took Sarafráz Khán upon his elephant "and conducted him with all honour to his own tent. Few of the "garrison escaped with their lives, and the whole city was given up to "plunder."* The fort of Shujábád† was also reduced, and five guns taken from it. The walls of Mooltán were then repaired, and Diwán Chand returned to Lahore, leaving in the fort a garrison of 600 men under the command of Sirdár Jodh Singh Kalsiá and Dal Singh Naharná. The family still survives; it is represented by Abdul Majíd Khán, son of Nawáz Sháh, the second son of Muzaffar Khán, who with other members of the family enjoys a pension from Government, and in 1865 received the title of Nawáb for life. He lives at Lahore. The full pedigree table of the Nawábs is given in Appendix I to Mr. Roe's Settlement Report.

General character of the Nawáb's administration.

Notwithstanding the external difficulties against which the Nawábs had to contend, their internal administration was vigorous and successful. During their rule the whole of the canals of the district, with one or two exceptions, were constructed, most of them by the direct agency of the Government, only a few very minor works being constructed by the people themselves. Considerable improvements were made in these by Sáwan Mal, and also under English rule, but the Diwánwáh in Mailsi made by Sáwan Mal and the Hájíwáh which was commenced in 1860, are the only real additions which have been made to the works of the Nawábs. The taxation was light, and the revenue which was raised was spent within the limits of the district. No doubt considerable grants were held as *jágirs* by the members of the Nawáb's family and other leading Afgháns, to whom also villages were often sold by the old cultivating proprietors. But the change of status was hardly more than nominal; all dues were paid in kind; and at the Nawáb's Court there was little of that extravagance which requires to be fed by constant exactions from the people.

Sikh Rule, 1818 to 1849 A.D.

During the early years of Sikh rule the administration of the province changed hands rapidly, three governors, Sukh Diál, Shám Singh, and Sewa Singh, successively holding office within two years. In 1820 a fourth governor, Bháhiá Badan Hazárí, was appointed, having under him as head of the account office Sáwan Mal, son of Hoshnák Rái, a Khatrí of Akálgarh. But Badan Hazárí was utterly

* Griffin. The plunder was estimated at two millions sterling.
† Erected by Nawáb Shújáa Khán, son of Záhid Khán.

Chapter II.
History.
Sikh Rule, 1818 to 1849 A.D.

incompetent, and was recalled in disgrace within a year; Sáwan Mal, who had already attracted the attention of the Mahárája, being promoted in his stead. At first only half the province was entrusted to him, but in 1829 he was made governor of the whole. The country which thus came under his rule, comprising the districts of Mooltán, Leiah,* Dera Ghází Khan, Khangarh,† and part of Jhang, was "almost a desert. For many years it had been the scene of rapine "and war. Life and property were insecure, and the population, which "once had been numerous and wealthy, had become scanty and "impoverished. But under the new administration a great change "was wrought. Diwán Sáwan Mal, by offers of land and protection, "induced many inhabitants of neighbouring districts to settle in his "province. He excavated canals (in the Mooltán district alone of the "length of 300 miles), he favoured commerce, and acted in every way "as a wise and beneficent ruler."‡

Sáwan Mal, 1829 to 1844 A.D.

During the reign of Ranjít Singh Sáwan Mal was little disturbed. He paid his tribute with the greatest regularity, and in other respects was irresponsible. But on the death of the great Mahárájá, the voices of the Jammu Rájas, Guláb Singh and Dhián Singh, who were bitter enemies of the Diwán, became all powerful at court, and it was proposed to demand from him a fine of half a million sterling. He was summoned to Lahore to render his accounts (September 1840). An amicable arrangement, however, was made, and he returned in peace to Mooltán. In March of the following year he was directed by Mahárája Sher Singh to raise troops, an order which he gladly obeyed, enrolling large numbers of Muhammadans, by whose help he hoped, when the time came, to hold his own against his enemies; for he was still an object of bitter jealousy to the Dográ family. At the same time he bestowed much care and money on the improvement of the defences of Mooltán, rendering the city all but impregnable to a native force; and "there is every reason to believe that he intended "at some favourable opportunity to throw off his allegiance to Lahore "and declare his independence."§ His plans, however, of whatever kind, were destined to a rude interruption; for on the 11th September 1844, on issuing from his *Darbár*, he was shot in the breast by a soldier who was under arrest upon a charge of theft, and died a few days later from the effects of the wound. Thus perished the wisest and best of all Sikh Governors. Though for years practically irresponsible, he had in no way abused his power.

Sáwan Mal's administration.

Administering justice firmly and impartially, he devoted all his energies to the improvement of his charge, and its recovery from the decay into which it had fallen owing to the wars and tumults of late years. Although he only constructed one new canal, he restored many old ones which had become almost useless, and improved many others. By granting leases on liberal terms, he induced settlers to break up new land, and he paid special attention to the extension of indigo cultivation. Thus developing the resources of the country he was enabled, whilst regularly remitting his tribute to Lahore, and paying all the expenses of his administration, to amass a large private

* Dera Ismail Khan.
† Muzaffargarh.
‡ Griffin.
§ *Ibid.*

Chapter II.

History.

Sáwan Mal's administration.

fortune, which was found at his death to amount to upwards of a million sterling. This represents nearly the whole of the gross revenue of the Mooltán district which would have been taken by the British Government during the whole of his rule, yet it was gained without any gross oppression or corruption, and Sáwan Mal and his times are still regarded by the people, not certainly with regret, but with esteem and affection.

Múlráj, 1844 to 1849 A.D.

He was succeeded as Governor of Mooltan by his son Múlráj, who had served as his father's deputy at Shújabád and Jhang. He was a man of perhaps even greater ability than his father, but of less amiable character. Both in Shújabád and Jhang he had acquired a reputation for oppression and avarice, and though these faults became subsequently less conspicuous, he never attained to popularity.

The Lahore *Darbár* hearing of the vast wealth left by Sáwan Mal, demanded of his son a *nazarána*, or fine, of a *kror* of rupees, equivalent to a million sterling. Múlráj at the same time was embarrassed by disaffection in the Sikh portion of his troops, who in November 1844 (instigated, it was believed, by the Lahore *Darbár*) broke into open mutiny, demanding higher pay. Múlráj immediately attacked and dispersed the mutineers; then sending to Lahore offered a small *nazarána*, and after much negotiation agreed to pay 18 lakhs of rupees. But in the very month this arrangement was made the war broke out between the Sikhs and English, which ended in the occupation of Lahore by a British army. Rája Lál Singh, an old enemy of Múlráj, was now minister at Lahore, and at his instigation an army was sent against Mooltán to enforce payment of the *nazarána*, which during the war Múlráj had made no attempt to pay. Múlráj submitted and came to Lahore in November 1844, where an agreement was concluded by which he was to pay 8 lakhs of what was due at once, and the remainder by instalments, the districts of Leiah and Jhang being taken from him. Múlráj returned to Mooltán and paid the 18 lakhs; but he was not content; he had lost a portion of his province, and there was now a strong government at Lahore, able and willing to listen to complaints and redress grievances. This was more than Múlráj, who had inherited his father's pride and ambition, could endure. Proceeding therefore again to the capital, he tendered his resignation, which after some delay and correspondence was accepted.

First Sikh War, 1844 A.D.

Rebellion and siege of Mooltan, 1848-49 A.D.

The government was entrusted to Sirdár Khán Singh Mán, in conjunction with Mr. Vans Agnew, C.S., who was appointed Political Agent with Lieutenant Anderson as his assistant. These officers reached Mooltán on April 17th, 1848. On the 19th, as they were proceeding in company with Múlráj to inspect the Fort, and were passing under the gateway, Mr. Vans Agnew was cut down by a soldier of the Diwán and severely wounded. Lieutenant Anderson was also cut down and left for dead. Múlráj, who is believed up to this time to have been innocent of any guilty intention,* rode off to his own house. Mr. Vans Agnew escaped to the *Idgah*, a strong building about a mile to the north of the fort, in which the party had taken up their quarters; and here, too, Lieutenant Anderson was afterwards carried by some Gurkha sepoys of their escort. On the morning of the 20th the fort opened fire upon the *Idgah*, and after a short time the Sikh

* Griffin.

Chapter II.

History.

Rebellion and siege of Mooltán, 1848-49 A.D.

escort went over to the enemy, when the building was carried by assault, and the wounded officers put to the sword. The die was now cast; and Múlráj, who was probably sincere in his resignation, and had no intention of rebelling, threw himself heart and soul into the struggle which ensued. The history of that struggle belongs to the general history of the Punjab. It ended in the capture of Mooltán by the British arms, and the annexation of the Punjab. The city fortified by Sáwan Mal offered at first a resolute defence; but after severe fighting the city was stormed on January 2, 1849; and on the 22nd Múlráj, who had retired to the citadel, seeing further resistance to be hopeless, surrendered at discretion. He was put upon his trial for the murder of Mr. Vans Agnew and Lieutenant Anderson, and being found guilty was sentenced to death. The Governor-General, however, accepting the Judge's recommendation to mercy, commuted the sentence to transportation for life. Múlráj was accordingly sent to Calcutta, where he died in the following year. His son Hari Singh is now an Extra Assistant Commissioner in the Punjab. Besides Múlráj, Sáwan Mal left five other sons, four of whom are still alive. They are all engaged in commerce in their native town of Akálgarh in the Gujránwála district.

British Rule.

Meanwhile possession of the district had been taken in the name of the British Government. Mooltán became the head-quarters both of a Division and a district. The Division contains the districts of Mooltán, Muzaffargarh, Jhang and Montgomery. The Mooltán district at once assumed its present form, with the exception of that portion of the Sarai Sidhu *tahsíl* which lies beyond the Rávi. This was added to it in 1851. In 1880, five villages on the Rávi were transferred from *tahsíl* Shorkot of the Jhang district to the Sarai Sidhu *tahsíl* of Mooltán.

The mutiny.

The following account of the events of 1857 is taken from the Punjab Mutiny Report:—

"A large part of the Multan division is mere waste land, covered with jungle or else with a short grass and stunted bushes. These tracts are inhabited by several nomadic tribes, whose sustenance is from their flocks, whose habits are primitive, and whose character is restless, impatient of control and thievish to a degree. They are Muhammadans, and profess to be descended from a common ancestor who lived some centuries ago. In September these tribes rose in insurrection, attacked several police posts and disarmed the policemen, took possession of the road by which all mails from the Punjab were at that time carried to England and to all parts of India south of Delhi, and threatened to inflict a severe blow on our power when it was at its weakest; for they rose but a few days before the capture of Delhi, when the Punjab was almost without troops. The operations which were carried on against these tribes are fully detailed in the Gazetteer of the Montgomery district, as the outbreak began there, although it seriously affected every district of the Division.

"At the head-quarters of the Division much anxiety was caused to Major Hamilton, Commissioner, and all the other residents, by the presence of two corps of native infantry, of whom one, the 69th, was known to be thoroughly bad. The post was an important one, as commanding the only outlet the Punjab at that time possessed for communication with England, Bombay and Calcutta, &c. The troops were providentially disarmed in time, and no outbreak took place. The station of Multan commands the passage down the river from Lahore, and the only post road whereby the Punjab could communicate with the rest of the world.

Chapter II.
History.
The mutiny.

[At] the time of the outbreak it was occupied by the 62nd and 69th Native [Inf]antry, 1st Irregular Cavalry, a native troop of horse artillery, and a [co]mpany of European artillerymen. The 69th was strongly suspected. [Th]e other native troops were considered staunch, and subsequent events [v]erified the supposition in every case. It was necessary to provide a [r]efuge in case of any disturbance. The old fort, which had lain in a ruinous condition since it had been battered and dismantled by the British army in 1849, was put in a position of defence, provisioned, and garrisoned by some men of Captain Tronson's Kuttar Mukhi police battalion. As these arrangements occupied some days, and the temper of the native troops could not be trusted from hour to hour, Lieutenant Etheridge, of the Indian Navy, who happened to be at Multan with his vessel, was requested to detain the steamer until the fort should have become defensible. With this request Lieutenant Etheridge willingly complied, and the steamer lay off Multan until it was no longer requisite to trust to it as an asylum in case of need. In the early days of May a crowd of sepoys constantly thronged the Multan post-office, eagerly asking 'for news,' and 'whether the mail had arrived,' and similar questions, in themselves unusual, and were accompanied by such language and demonstrations as were freely used tending to throw the whole establishment into bodily fear. Family remittances, which the soldiery had hitherto always made through the Government treasury, now ceased to be so made. The payments which the men had made on account of these remittances were boisterously demanded back in cash. The price of gold coin rose rapidly in the exchange markets, showing a large demand for portable wealth. Such symptoms of uneasiness (occurring too before any outbreak in the North-Western Provinces) could not but excite the gravest apprehensions in the minds of all European residents; they could not but lead to the conclusion that the soldiery were bent on some mischief, or, to say the least, that their confidence in our Government was gone, and they would rather trust their money in their own hand than in ours. When news of the outbreak in the North-Western Provinces reached Multan, what had been inexplicable was at once explained, the mystery was revealed, these actions were seen to be part and parcel of a universal and determined design to subvert our rule.

"Colonel Hicks, commanding at Multan, failed to discover in the conduct of the regiments of native infantry any thing which could justify him in taking from them their arms. The Chief Commissioner, however, sent peremptory orders that they were to be disarmed, and on the morning of June 10th the minds of European and native residents were relieved, commerce was re-established, and our authority vindicated by the most successful disarming of the 62nd and 69th Native Infantry by Major C. Chamberlain, Commanding 1st Irregular Cavalry. The peculiar character of this excellent move was that the European troops were but 48 artillerymen. The other auxiliaries were all natives, and one regiment, the 1st Irregular Cavalry, was composed of Hindustanis. During the whole day the townspeople flocked to the Commissioner, Major Hamilton, expressing their hearty congratulations on the success of the measure, and their own relief at the prospect of immunity from rapine and slaughter. On the 19th and two following days of June the left wing Bombay Fusiliers came in, and about three weeks afterwards the right wing arrived. The imperious requirements of the service, however, forbade the authorities to keep these troops here, and they as well as the trusty Punjabi troops who arrived from time to time were pushed on towards Lahore or Delhi; so that, with the exception of the 1st Irregulars, the company of artillery, and the police battalion, Multan had absolutely no

Chapter II.

History.

The mutiny.

military standby to resist the two full regiments of Native Infantry which were located there. It was an anxious time. If proof of the ill-will of the 69th be required, it is afforded by the facts that the chief native officer of the regiment and 10 men were blown from guns by sentence of court-martial for sedition and intended mutiny; that just before their execution they boasted of their intent and reviled each other for the cowardice displayed in their own past inaction; that when the regiment was disarmed it was found that the artillery (native) had laid the guns, in anticipation of a struggle, directly on the 69th, avoiding the 62nd; and that the demeanour of the corps throughout was insolent and rebellious to the last degree. On the 11th August the horse artillery was disarmed as a precautionary measure. On the same date the enrolment of men for the new 11th Punjab Infantry was commenced by transferring to it men from other regiments. The Gugera insurrection broke out little more than a month afterwards. The new men at Multan were still undisciplined, and could hardly yet be relied on as a serviceable field force. Most of them were left to guard the station, while Major Chamberlain led out his regiment, the 1st Irregular Cavalry (Hindustanis) with some 200 men of the new levies, against the insurgents. Another cause of anxiety at Multan had been the conduct of the preventive service on the Sutlej. Very many of the men employed in it were Hindustanis. They bolted at the first rise in Hindustan, and went off in numbers to join their kindred by blood and by disposition who were enjoying a transient glory over the smouldering ruins of Hánsi and Hissar. Men to take their place were raised in the district, and no serious damage was done to the Government interests by their defection. Under the orders of the Chief Commissioner a camel train was organized, having one of its depôts at Multan. It was designed for the conveyance of private parcels, munitions of war and merchandize between Sind and the Punjab, and proved most useful. The care of it constituted one of the many miscellaneous duties entailed on Major Voyle, Deputy Commissioner. The duty of preserving the safety of part of the road between Lahore and Multan, especially during and after the Kharral insurrection, was another most anxious charge for him. The number of widowed ladies, wounded officers, and other travellers who passed down this way, and who were incapable of protecting themselves, made it very needful that the road should be defended. To this end the Deputy Commissoners of Lahore, Gugera and Multan were desired to locate extra police, both horse and foot, at every road police station. The arrangement was vigorously carried out, and after the end of September, when the road was re-opened, every European traveller was provided with a guard. The mail-carts were also defended in their passage; for until routes were opened up through Baháwalpur and Jhang the Punjab was, as regarded communication with other localities, hermetically sealed."

Divisional and district officers.

The following is a list of the officers who have held charge of Mooltán in the capacity of Commissioner and Deputy Commissioner, omitting those who merely held it as a temporary arrangement :—

Name.	Period of Office.	
	From	To
I.—COMMISSIONERS.		
1. Mr. P. M. Edgeworth, C. S. ...	May 1849 ...	May 1855.
2. Lieutenant-Colonel Hamilton...	May 1855 ...	21st October 1862.
3. Mr. Ford, C.S. ...	21st October 1862 ...	24th March 1868.
4. Lieutenant-Colonel Cripps ...	24th March 1868 ...	5th March 1869.

Chapter II.

History.

Divisional and district officers.

Name.	Period of Office.	
	From	To
5. Mr. Brandreth, C.S.	11th March 1869 ...	18th April 1871.
6. Colonel Graham	25th June 1871 ...	4th March 1873.
7. Colonels Hall, Young, Coxe, Tighe	4th March 1873 ...	21st October 1874.
8. Mr. Brandreth, C.S.	27th October 1874 ...	7th February 1876.
9. Colonel Graham	7th February 1876 ...	20th September 1878
10. Mr. Cordery, C.S.	21st October 1878 ...	
II.—DEPUTY COMMISSIONERS.		
1. Lieutenant James	March 1849 ...	August 1849.
2. Captain Morrison	September 1849 ...	March 1850.
3. Mr. H. F. Fane	April 1850 ...	30th December 1851.
4. Mr. W. Ford	31st December 1851 ...	1st February 1853.
5. Major Hamilton	2nd February 1853 ...	17th May 1854.
6. Mr. H. B. Henderson	26th May 1854 ...	28th January 1856.
7. Major Voyle	29th January 1856 ...	13th December 1861.
8. General Van Cortlandt, C.B. ...	14th December 1861...	10th March 1863.
9. Major Maxwell...	11th March 1863 ...	4th November 1863.
10. General Van Cortlandt ...	5th November 1863...	23rd March 1868.
11. Mr. D. G. Barkley	24th March 1868 ...	24th September 1868.
12. Mr. R. T. Burney	7th April 1869 ...	2nd December 1869.
13. Major R. G. Shortt	3rd December 1869 ...	September 1870.
14. Colonel Ferris	15th November 1870...	13th April 1873.
15. Captain Lang	14th April 1873 ...	14th April 1875.
16. Colonel Mercer	15th April 1875 ...	28th Feburary 1876.
17. Lieuenant-Colonel Birch ...	29th February 1876...	3rd April 1877.
18. Mr. A. H. Benton	4th April 1877 ...	20th December 1877.
19. Captain Lang	21st December 1877...	28th March 1880.
20. Captain A. S. Roberts ...	29th March 1880 ...	29th November 1880.
21. Major R. T. M. Lang ...	30th November 1880	25th March 1881.
22. Mr. C. A. Roe	26th March 1881 ...	1st June 1882.
23. Mr. E. O'Brien	2nd June 1882 ...	Still in charge.

Development since annexation.

Some conception of the development of the district since it came into our hands may be gathered from Table No. II, which gives some of the leading statistics for five yearly periods, so far as they are available; while most of the other tables appended to this work give comparative figures for the last few years. In the case of Table No. II it is probable that the figures are not always strictly comparable, their basis not being the same in all cases from one period to another. But the figures may be accepted as showing in general terms the nature and extent of the advance made. The following figures show the revenue of the district at intervals of ten years. In 1849 there were only 581,960 acres under the plough; there are now 799,360; while the number of wells in use has increased during the same interval from 4,919 to 12,177.

Revenue 1851-52, 1861-62, 1871-72, 1881-82, *compared.*

Year.	Land Revenue		Salt and Customs.	Spirits	Opium and Drugs.	Assessed Taxes.	Stamps.
	Proper.	Fluctuating.					
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1851-52 ...	5,46,043	31,591	52	5,469	4,177	...	9,310
1861-62 ...	5,24,497	,5,514	20,619	10,360	10,155	...	32,241
1871-72 ...	5,15,925	1,27,746	96,392	22,485	23,343	22,835	68,257
1881-82 ...	5,72,566	76,560	2,250	30,350	20,341	19,665	98,122

Chapter II.
History.
Development since annexation.

Mr. Roe thus sums up the total revenue paid by the district in 1878-79, and compares it with that of the Regular Settlement of 1858—

Revised Settlement—	Rs.	
Land Revenue	6,72,626	
Dates	14,586	
Total		6,87,212
Extras—	Rs.	
Sanctioned cesses @ Rs. 12-8 per cent.	85,920	
Zaildári cess for Sarai Sidhú	707	
Local rates @ Rs. 8-5-4 per cent.	57,280	
		1,43,907
Total		8,31,119

"The Deputy Commissioner has kindly supplied me with a statement showing the taxes levied, in addition to those on the land for 1878-79 They are :—

	Rs.
Octroi in six municipalities	91,802
Sajjí	8,845
Tirní	91,311
Miscellaneous	938
Licence Tax	53,763
General stamps	25,465
Judicial stamps	65,328
Total	3,37,452

"This, added to the land taxes, gives a total of Rs. 11,68,721, which falls on the total population of the district at a little less than Rs. 2-8 per head. The figures for the last Settlement are not complete; but as far as I can ascertain them, they were Land Revenue Rs. 4,92,313; Dates Rs. 8,387; total Rs. 5,00,700. Cesses, at Rs. 12-8 per cent., Rs. 62,587. Total burden on the land Rs. 5,63,287; *tirní* Rs. 45,960; Stamps Rs. 11,672. Grand total Rs. 6,20,919; which on the population of the Census of 1854 gives a rate per head of Re. 1-8 only."

CHAPTER III.

THE PEOPLE.

SECTION A.—STATISTICAL.

Chapter III, A.

Statistical.

Distribution of population.

Table No. V gives separate statistics for each *tahsîl* and for the whole district, of the distribution of population over towns and villages, over area, and among houses and families; while the number of houses in each town is shown in Table No. XLIII. The statistics for the district as a whole give the following figures. Further information will be found in Chapter II of the Census Report of 1881:—

Percentage of total population who live in villages	Persons	... ...	84·04
	Males	... ...	83·89
	Females	... ...	84·23
Average rural population per village	...	...	360
Average total population per village and town	...	...	427
Number of villages per 100 square miles	...	...	22
Average distance from village to village, in miles	...	...	2·29
Density of population per square mile of	Total area	Total population	94
		Rural population	79
	Cultivated area	Total population	442
		Rural population	371
	Culturable area	Total population	100
		Rural population	84
Number of resident families per occupied house	Villages	...	1·18
	Towns	...	1·49
Number of persons per occupied house	Villages	...	5·99
	Towns	...	5·42
Number of persons per resident family	Villages	...	5·06
	Towns	...	3·63

But it must be remembered that about half the whole area consists of great grazing grounds, the property of Government, and scantily inhabited by nomad graziers. The area included within village boundaries is only 2,922 square miles; and on that area the density of population is 188 per square mile. Moreover, the number of "villages" does not necessarily correspond with the number of separate units of habitation. The Census "village" is the revenue-paying area; while a large proportion of the rural population is scattered over the face of the country in petty hamlets, every proprietor residing with his family and retainers upon his plot of cultivated land, which may or may not be contiguous to the estate of his next neighbour. It is only in the larger townships that any considerable collection of houses upon a common site is to be found.

Migration and birth-place of population.

Table No. VI shows the principal districts and states with which the district has exchanged population, the number of migrants

Chapter III, A.

Statistical.

Migration and birth-place of population.

in each direction, and the distribution of immigrants by *tahsíls*. Further details will be found in Table No. XI and in supplementary Tables C to H of the Census Report for 1881, while the whole subject is discussed at length in Part II of Chapter III of the same report. The total gain and loss to the district by migration is shown in the margin. The total number of residents born out of the district is 55,174, of whom 36,356 are males and 18,818 females. The number of people born in the district and living in other parts of the Punjab is 17,474, of whom 10,439 are males and 7,035 females. The figures below show the general distribution of the population by birth-place:—

Proportion per mille of total population.	Gain.	Loss.
Persons ..	99	32
Males ..	119	34
Females ..	76	29

Born in	PROPORTION PER MILLE OF RESIDENT POPULATION.								
	Rural Population.			*Urban Population.*			*Total Population.*		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
The District ..	915	942	925	709	833	766	881	924	900
The Province ..	989	996	992	879	939	905	972	986	978
India ..	998	1,000	999	969	996	980	994	999	996
Asia ..	1,000	1,000	1,000	978	997	986	997	999	998

The following remarks on the migration to and from Mooltán are taken from the Census Report:—

"Mooltán is a scantily peopled district, while there has been an immense development of canal irrigation of late years; and it is surrounded by districts in which the pressure of population is markedly greater than in itself, on cultivated at any rate, if not on total area. Consequently it takes population from every district save Muzaffargarh, where the development has been even greater still. The number of immigrants is more than three times the number of emigrants; indeed there has been hardly any emigration except to Muzaffargarh and Baháwalpur, where also a great development has lately taken place under British management. Mooltán has attracted settlers from the rival centres of commerce at Lahore and Amritsar, while the unirrigated district of Jhang with its scanty cultivation, and the barren plains of Baháwalpur, have sent it large numbers of immigrants. The immigration from the N. W. Provinces is due to the cantonments. The proportion of males is naturally higher in the case of the more distant districts."

Increase and decrease of population.

The figures in the statement below show the population of the district as it stood at the three enumerations of 1855, 1868, and 1881. The first of these was:—

	Census.	Persons.	Males.	Females.	Density per square mile.
Actuals ...	1855 ...	411,386	229,423	181,963	70
	1868 ...	472,268	261,808	210,460	80
	1881 ...	551,964	304,517	247,447	94
Percentages...	1868 on 1855	114·1	114·1	115·7	114
	1881 on 1868	116·9	116·3	117·6	118

Increase and decrease of population.

It will be seen that the annual increase of population per 10,000 since 1868 has been 117 for males, 126 for females and 121 for persons, at which rate the male population would be doubled in 59·6 years, the female in 55·7 years, and the total population in 57·8 years. Supposing the same rate of increase to hold good for the next ten years, the population for each year would be in hundreds, as shown in the margin. But it is improbable that the rate of increase will be sustained. Part of the increase is probably due to increased accuracy of enumeration at each successive enumeration, a good test of which is afforded by the percentage of males to persons, which was 55·76 in 1855, 55·43 in 1868, and 55·17 in 1881. Part again is due to gain by migration, as already shown at page 38; and it is hardly to be expected that Mooltán will retain the superiority in development of irrigation over neighbouring districts which has contributed to the excess of immigration over emigration. At the same time the district is distinctly a healthy one, and the natural rate of increase large. The increase in urban population since 1868 has been exactly the same as that in rural population, the numbers living in 1881 for every 100 living in 1868 being 117 for urban and 117 for total population. The populations of individual towns at the respective enumerations are shown under their several headings in Chapter VI.

Year.	Persons.	Males.	Females.
1881	551,9	304,5	247,4
1882	558,6	308,1	250,6
1883	565,4	311,7	253,7
1884	572,2	315,3	256,9
1885	579,1	319,0	260,1
1886	586,1	322,7	263,4
1887	593,2	326,5	266,7
1888	600,3	330,3	270,0
1889	607,6	334,2	273,4
1890	614,9	338,1	276,8
1891	622,3	342,1	280,3

Within the district the increase of population for the various *tahsíls* is shown in the margin.

Tahsil.	*Total population.*			*Percentage of population.*	
	1855.	1868.	1881.	1868 on 1855.	1881 on 1868.
Mooltan ..	125,562	137,864	170,610	109	124
Shujabad ..	54,457	57,958	61,622	106	107
Sarai Sidhu ..	52,438	66,778	80,012	127	120
Mailsi ..	101,500	118,261	141,517	117	120
Lodhran ..	77,429	91,907	98,203	118	107
Total district* ..	411,386	472,768	551,964	115	117

Births and deaths.

Table No. XI shows the total number of births and deaths registered in the district for the five years from 1877 to 1881, and the births for 1880 and 1881, the only two years during which births have been recorded in rural districts. The distribution of the total deaths and of the deaths from fever for these five years over the twelve months of the year is shown in Tables Nos. XIA and XIB. The annual birth-rates per mille, calculated on the population of 1868, were as shown in the margin.

	1880	1881
Males ..	18	21
Females ..	15	17
Persons ..	33	38

The figures below show the annual death-rates per mille since 1868, calculated on the population of that year:—

	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	Average
Males ..	10	19	24	24	25	19	22	30	31	26	28	21	26	32	24
Females ..	9	19	22	31	24	18	22	26	28	24	27	18	25	32	23
Persons ..	10	19	23	23	24	19	22	28	30	25	28	20	25	32	23

* The figures here given for 1868 differ somewhat from the published total for the district; but they are the only details available.

Chapter III, A.
Statistical.
Births and deaths.

The registration is still imperfect, though it is yearly improving; but the figures always fall short of the facts, and the fluctuations probably correspond, allowing for a regular increase due to improved registration, fairly closely with the actual fluctuations in the births and deaths. The historical retrospect which forms the first part of Chapter III of the Census Report of 1881, and especially the annual chronicle from 1849 to 1881 which will be found at page 56 of that report, throw some light on the fluctuations. Such further details as to birth and death-rates in individual towns as are available will be found in Table No. XLIV, and under the headings of the several towns in Chapter VI.

Age, sex, and civil condition.

The figures for age, sex and civil condition are given in great detail in Tables No. IV to VII of the Census Report of 1881, while the numbers of the sexes for each religion will be found in Table No. VII appended to the present work. The age statistics must be taken subject to limitations which will be found fully discussed in Chapter VII of the Census Report. Their value rapidly diminishes as the numbers dealt with become smaller; and it is unnecessary here to give actual figures, or any statistics for *tahsils*. The following figures show the distribution by age of every 10,000 of the population according to the Census figures:—

	0—1	1—2	2—3	3—4	4—5	0—5
Persons ...	342	217	286	328	325	1,498
Males ...	314	199	263	304	305	1,385
Females ...	375	239	314	359	349	1,636
	5—10	10—15	15—20	20—25	25—30	30—35
Persons ...	1,438	1,013	755	799	882	884
Males ...	1,459	1,082	771	776	873	893
Females ...	1,523	928	735	827	894	874
	35—40	40—45	45—50	50—55	55—60	over 60
Persons ...	498	709	315	472	108	579
Males ...	518	701	336	501	119	586
Females ...	472	720	289	435	94	572

Population.		Villages.	Towns.	Total.
All religions ...	1855 ...	...	...	5,576
	1868 ...	...	...	5,543
	1881 ...	5,507	5,569	5,517
Hindus ...	1881 ...	5,659	5,552	5,620
Sikhs ...	1881 ...	6,842	...	7,098
Musalmáns ...	1881 ...	5,474	5,465	5,478
Christians ...	1881 ...	...	7,936	7,719

The number of males among every 10,000 of both sexes is shown in the margin. The decrease at each successive enumeration is almost certainly due to greater accuracy of enumeration.

Chapter III, A.

Statistical.

Age, sex, and civil condition.

In the Census of 1881, the number of females per 1,000 males in the earlier years of life was found to be as shown in the margin. The figures for civil condition are given in Table No. X, which shows the actual number of single, married and widowed for each sex in each religion, and also the distribution by civil condition of the total number of each sex in each age-period. The Deputy Commissioner wrote as follows in his Census report for the district:—

Year of life.	All religions.	Hindus.	Musalmáns.
0—1 ...	972	1,024	960
1—2 ...	980	1,024	966
2—3 ...	971	976	971
3—4 ...	960	...	...
4—5 ...	929	...	...

"The number of married men is in excess of the married women, but this must be due to the fact that many men, such as employés and servants, and some minors, have their wives in other districts. I have never heard of polyandry being practised. Of the unmarried women 6·8 per cent. are over 15 years age; amongst the Hindus the percentage is only 3; amongst the Muhammadans it is 7·6. Of the married women, the proportion under 15 is 4 per cent. for the whole population; amongst the Hindus it is 7 per cent., and amongst the Muhammadans it is only 3 per cent. This corroborates the well known fact that in this district the Muhammadan girls marry rather late. This is not an unmixed good. It often happens that a girl's parents wish to marry her to some rich old man; she runs off with a lover of her own; charges of abduction are at once made by the parents and the disappointed bridegroom, and false evidence is freely given on both sides."

Infirmities.

Table No. XII shows the number of insane, blind, deaf-mutes and lepers in the district in each religion. The proportions per 10,000 of either sex for each of these infirmities are shown in the margin. Tables Nos. XIV to XVII of the Census Report for 1881 give further details of the age and religion of the infirm. The general health of the district has already been noticed at page 12.

Infirmity.	Males.	Females.
Insane ..	12	7
Blind ..	48	52
Deaf and dumb ..	14	8
Leprous ..	1	1

European and Eurasian population.

The figures given below show the composition of the Christian population, and the respective numbers who returned their birth-place and their language as European. They are taken from Tables Nos. IIIA, IX, and XI of the Census Report for 1881:—

Details.		Males.	Females.	Persons.
Races of Christian population.	Europeans and Americans	1,364	345	1,709
	Eurasians	54	56	110
	Native Christians	18	24	42
	Total Christians	1,436	425	1,861
Language.	English	1,401	393	1,794
	Other European languages	11	2	13
	Total European languages ..	1,412	395	1,807
Birth-place.	British Isles	1,133	129	1,262
	Other European countries	11	5	16
	Total European countries ..	1,144	134	1,278

Chapter III, B.

Social and Religious Life.

European and Eurasian population.

But the figures for the races of Christians, which are discussed in Part VII of Chapter IV of the Census Report, are very untrustworthy; and it is certain that many who were really Eurasians returned themselves as Europeans. The figures for European birth-place are also incomplete, as many Europeans made entries, probably names of villages and like, which, though they were almost certainly English, could not be identified, and were therefore classed as "doubtful and unspecified." The number of troops stationed in the district is given in Chapter V, and the distribution of European and Eurasian Christians by *tahsíls* is shown in Table No. VII.

SECTION B.—SOCIAL & RELIGIOUS LIFE.

Food of the people.

The following note regarding the food of the people was furnished by the district authorities for the Famine Report of 1879. The staple food consists of the *kharíf* grains, the pulses, wheat and rice. The proportion of wheat and inferior grains eaten depends entirely on the means of the family; well-to-do people eat only wheat; the very poor never eat it at all. Wheat and pulses are sown in November and December, and harvested in April; the *kharíf* grains are sown in July, and harvested in October. Rain can hardly be said to be essential, but a moderate supply in January and February, and in July and August, greatly improves both harvests. Excessive rain is always bad if it comes before the ears are formed; it brings blight; if it comes afterwards, it beats down the grain and rots it. Sometimes it comes when the grain is being threshed; it then destroys the whole of the *bhúsá* and a great part of the corn. In an agricultural family the old person may be estimated to eat $\frac{3}{4}$ ser of *átta*, one *chitták* of *dál* or other pulses a day; the wife the same as the old person; the man, one sér of *átta* and one *chitták* of *dál*; the children would each eat half as much as the man; this seems a large allowance for them, but then they eat much more often than adults; at the above rate the yearly consumption would be as follows:—

Atta $3\frac{1}{2}$ sérs a day=1,277 sérs or 32 maunds a year.

Dál 4 *chittáks* a day=91 sérs or 2 maunds 11 sérs a year.

The amount of vegetables and green food consumed cannot be definitely estimated. It depends on whether the family has a garden or not. The consumption of a non-agricultural family would be much the same as the above, but probably the man would eat $\frac{3}{4}$ instead of a whole sér of *átta* a day, and this would reduce the yearly consumption by 91 sérs or to about 30 maunds.

General statistics and distribution of religions.

Table No. VII shows the numbers in each *tahsíl* and in the whole district who follow each religion, as ascertained in the Census of 1881, and Table No. XLIII gives similar figures for towns. Tables Nos. III, IIIA, IIIB of the Report of that Census give further details on the subject. The distribution of every 10,000 of the population by religions is shown in the margin. The limitations subject to which these figures must be taken, and especially the rule followed in the classification of Hindus, are fully discussed in

Religion.	Rural population.	Urban population.	Total population.
Hindu ..	1,527	4,676	2,029
Sikh ..	30	77	38
Jain ..	..	5	1
Musalman	8,439	5,046	7,897
Christian..	5	187	34

Chapter III, B.

Social and Religious Life.

General statistics and distribution of religions.

Sect.	Rural population.	Total population.
Sunnis ..	993	990
Shiahs ..	6·2	8·8
Wahhabis ..	0·1	0·2
Others & unspecified	0·8	0·8

Part I, Chapter IV of the Census Report. The distribution of every 1,000 of the Musalmán population by sect is shown in the margin. The sects of the Christian population are given in Table No. IIIA of the Census Report; but the figures are, for reasons explained in Part VII, Chapter IV of the Report, so very imperfect that it is not worth while to reproduce them here. Table No. IX shows the religion of the major castes and tribes of the district, and therefore the distribution by caste of the great majority of the followers of each religion. A brief description of the great religions of the Punjab and of their principal sects will be found in Chapter IV of the Census Report. The religious practice and belief of the district present no special peculiarities; and it would be out of place to enter here into any disquisition on the general question. The general distribution of religions by *tahsíls* can be gathered from the figures of Table No. VII; and regarding the population as a whole, no more detailed information as to locality is available. But all the landowning classes and almost all the menials are Musalmáns, the Hindus and Sikhs being almost confined to the mercantile classes and their priests.

Fairs.

The table given on pages 44 to 48 shows the various fairs of the district; but many of those entered hardly deserve this name, and even of the larger fairs there are none which are of the slightest importance from a business point of view. They are all held either in memory of some holy man, or to celebrate some well-known holiday, such as the Baisakhi or 'Id. The most important Muhammadan fairs are those held at Sher Sháh, Makhdúm Rashíd, Jalálpur, Jehánpúr, Baghdád, Fázil Sháh, and at a shrine in the jungle near Dunyapur. At all these the proceedings are much the same: disciples visit the tomb of some renowned saint and make their offerings, which are taken by the saints' descendants, or the attendants of the *khánkah*. In return a little amusement in the shape of wrestling and other sports is generally provided. Besides the fairs in honour of the Baisakhi, or of the new year, Vikramajit (about 10th Jeth), the Hindu fairs are mainly gatherings at celebrated shrines for the purpose of bathing in a sacred tank and making offerings at the adjoining temple. The chief of these are those held at Rám Chauntrá in Sarai Sidhú in April, and at Súrajkund near Mooltán in the beginning of August. The annual proceeds of the Sher Shah fairs are estimated at Rs. 2,000.

Language.

Table No. VIII shows the numbers who speak each of the principal languages current in the district separately for each *tahsíl* and for the whole district. More detailed information will be found in Table No. IX of the Census Report for 1881, while in Chapter V of the same report the several languages are briefly discussed. The figures in the margin give the distribution of every 10,000 of the population by language, omitting small figures.

Language.	Proportion per 10,000 of population.
Hindustani ..	189
Bagri ..	16
Kashmiri ..	1
Panjabi ..	2,909
Jatki or Multani ..	6,796
Pashtu .	23
All Indian languages ..	9,966
Non-Indian languages	34

Statement showing all Fairs of the Mooltán district.

Name of *tahsil.*	Name of fair.	Where held.	Why held.	Date.	Duration of fair.	Estimated attendance.	REMARKS.
			MUHAMMADAN FAIRS.				
Mooltán ...	Sher Shah ...	Sher Shah ...	In honour of the shrine of the Makhdúm's ancestors.	14th Sudi Chet. Between 15th March and 15th April.	4 days ...	20,000	The fair is attended by the disciples of the *makhdúm* who come from all parts on a pilgrimage to the shrine. The *makhdúm* entertains them with wrestling matches, ram fights, &c. The fair is mainly a pleasure one.
Do. ...	Sháh Kot ...	Sháh Kot ...	In honour of the shrine of Shekh Sarwar.	22nd Hár, about 7th July.	2 days ...	2,000	The fair is chiefly attended by disciples on a pilgrimage to the shrine. On the last day there is wrestling.
Do. ...	Makhdúm Rashíd.	Makhdúm Rashíd	In honour of the shrine of Makhdúm Rashíd.	1st Thursday after 15th Hár and 3 following Thursdays.	4 days ...	5,000	Only pilgrims to the shrine attend this fair. There is a well here into which at the close of the fair leaves of the *jal* tree are thrown. The well is then closed, and is not opened till next year's fair. The pilgrims drink eagerly from it.
Do. ...	Shah Shams...	Taraf Juma Khalsa	In honour of the shrine of Shah Shams Tabrez.	On the Friday after every I'd.	At evening for 3 hours.	2,000	Attended by pilgrims and sightseers.
Do. ...	Pír Jehaniá ...	Ditto ...	In honour of Pír Jehaniá.	On a Thursday in Hár, June 15 to July 15.	One Thursday.	1,000	There is no shrine here, only a *faqir's* hut. The assemblage can hardly be called a fair. Sometimes there is a little horse-racing.
Do. ...	Abid Khán's garden.	Abid Khán's garden at the village of Langrial.	To celebrate the holy days in Sawan (July-August).	For Sawan ...	Every Sunday in Sawan.	2,000	There is no shrine here, nor is there any particular object in the fair, which is merely a general gathering for holiday-making.

Chapter III, B.

Social and Religious Life.

Fairs.

HINDU FAIRS.

Do. ...	Budla Sant ...	Budla Sant at Dúgráná.	To celebrate new year's day	On 1st day of the Hindu year.	2 days ...	60,000	There is a tank and Hindu temple here. The Hindus resort to it to bathe and pray on their new year's day (about 15th April). The fair is merely a pleasure one.
Do. ...	Súraj Kúnd ...	At Káyanpúr ...	A pleasure fair ...	Bhadon and Magh, August-September and January-Feby.	Twice in a year for one day each time	50,000	Here also there is a tank and temple to which people resort to bathe and pray.
Do. ...	Ram Tirath ...	Taraf Júmá Khalsa	A religious fair ...	On the day of the new moon of Bhadon	1 day ...	2,000	Ditto.
Do. ...	Jog Máyá ...	Taraf Daira ...	Do. ...	In 8 days of Chet and Assarh (May-June and Sept.-Oct.)	8 days each time	Unknown	There is a temple of Devi here, especially resorted to by women.
Do. ...	Baisákhi ...	On the river bank	To celebrate the Baisákhi holiday	On 1st Baisakh	1 day ...	...	The people resort to the river to bathe.
Do. ...	Nar Singh Chowdas	In Fort Mooltán ...	A religious fair ...	On the day before the new moon of Baisákh	3 hours at evening	3,000	There is a temple at which petty offerings are made.

MUHAMMADAN FAIRS.

Shujábád ...	Rashid Shah	Shujábád ...	In honour of Rashid Shah	Every Thursday	From 4 o'clock	...	Worshippers attend and offer at Rashid Shah's *khánkah* sweetmeats and sugar, but no cash.
Do. ...	Pir Atab ...	In Halalwajeh ...	In honour of the shrine	On every Thursday in Sawan & Bhadon	1 day ...	600	Ditto.
Do. ...	Taj Muhammad *khánkáh*	Jahanpúr ...	Ditto ...	From 11th to 13th Safar = 16th to 18th March.	3 days ...	30,000	Disciples attend with their offerings, and there is a general pleasure fair.

Chapter III, B.
Social and Religious Life.
Fairs.

Statement showing all Fairs of the Mooltán district—(*continued*).

Name of *tahsil*.	Name of fair.	Where held.	Why held.	Date.	Duration of fair.	Estimated attendance.	REMARKS.
				HINDU FAIRS.			
Shujábád ...	Mari Narotamgir.	Gajju Hatta ...	In honour of Narotamgir ...	On 1st Sunday in Sawan (about 15th July).	1 day ...	600	The *samádh* or tomb of the *faqir* is visited by a small band of admirers.
Do. ...	Old garden on the Chenab	Paunta ...	To celebrate the Baisákhi	1st Baisákhi ...	1 day ...	3,000	The Hindus go to the river to bathe and hold a pleasure fair.
				MUHAMMADAN FAIRS.			
Lohdrán ...	Syad Sultan Ahmad Katal	Jalálpur ...	In honour of the Pír	In Chet on every Friday (March-April)	4 days ...	12,000	The disciples bring their offerings to the shrine of the Pír, and there is generally some wrestling.
Do. ...	Sheikh Ismail	Umrpur ...	In honour of the Pír	On 1st Monday in Hár	1 day ...	10,000	The disciples bring their offerings to the shrine of the Pír, and there is generally some wrestling.
Do. ...	Pir Fattehalla	Lahori ...	Ditto ...	Last Friday in Chet	1 day ...	2,000	Ditto.
Do. ...	Pir Mulah ...	Múlvi ...	Ditto ...	1st Friday in Baisakh	1 day ...	1,500	Ditto.
Do. ...	Chaukí ...	Lutfpúr ...	Ditto ...	14th Sawan (about 1st August)	1 day ...	1,500	Ditto.
Mailsi ...	Dewán Chaulí Mashaikh	Dewán Chaulí Mashaikh	In honour of the Pír	27th Ramzan (25th Sept.)	1 day ...	2,500	The offerings are shared by the Pír's descendants.
Do. ...	Abu-ul-bakar	Dhalú ...	Ditto ...	Chet ...	8 days ...	10,000	The offerings are taken by the attendants of the *khánkah*. The fair is mainly a religious and pleasure one, but a considerable trade in Pak Pattan work saddles, &c, is also done at it.

Chapter III, B.

Social and Religious Life.

Fairs.

Do. ...	Lal Hamíd ...	Fattehpur ...	Ditto ...	In Sawan on the 3rd Friday	1 day ...	5,000	The fair is mainly a pleasure one; it is held just when the dates are ripening, and the proprietors take the opportunity of selling these.
Do. ...	Mian Mír Ahmad	Chelahwahan ...	Ditto ...	9th Shawal, 1st October	1 day ...	1,000	A small pleasure and religious fair.
Do. ...	Jewan Sultan	Rapar, near Kahrore.	Ditto ...	In Chet on the 4th Friday	1 day ...	5,000	A litte trade done in Bahawalpur ware.
Do. ...	Syad Sultán Hají	Darúharwahan ...	Ditto ...	Weekly on Friday	1 day ...	200	
Do. ...	Pir Ayáb Qatal	In Jungh, No. 20, near Miapúr	Ditto ...	On 3rd Friday in Chet	1 day ...	6,000	Disciples make their offerings at the shrine, and there is a little wrestling.

HINDU FAIRS.

Mailsi ...	Chaukan di Bábá Nanak	Dewan Chauli Mashaikh	To celebrate new year's day	In Chet on new year's day	1 day ...	10,000	A Hindu religious and pleasure fair. A small building commemorates the visit of Baba Nanak here, and the attendant in charge of this takes the offerings.
Do. ...	Nagar Kot ...	Fadda ...	In honour of Devi...	On the Holi ...	1 day ...	1,000	A religious fair. The offerings are taken by the Brahmins.
Sarai Sidhú	Ram Chowtra	Ram Chowtra ...	In honour of Ram Chowtra	1st Baisakh ...	8 days ...	5,000	A religious fair. There is a celebrated temple here, and the *mahant* takes the offerings.
Do. ...	Arjan Sher ...	Sarai Sidhu ...	In honour of the holy man	27th Jeth ...	1 day ...	200	There is a *samadh* to which offerings are made.
Do. ...	Sayad Jalál...	Haweli Mubárik Shah...	Ditto ...	25th Baisakh ...	1 day ...	5,000	Sayad Jalál's *khánkah* is here, and offerings are made to it.
Do. ...	Muzaffer-shahid.	Phallu Tirholí ...	Ditto ...	15th Sawan ...	2 days ...	400	
Do. ...	Abdul Hakím	Abdul Hakím ...	Ditto ...	9th Hár ...	1 day ...	3,000	
Do. ...	Shah Habíb...	Baghdad ...	Ditto ...	27th Sawan ...	5 days ...	6,020	Shah Habib was a man of some renown. His *khánkah* is here, kept by his descendants, who divide the offerings made to it.
Do. ...	Mean Rahmán	Arotí ...	Ditto ...	12th Hár ...	1 day ...	500	
Do. ...	Mah sher ...	Mírpúr ...	Ditto ...	In Chet on the 3rd Friday ...	1 day ...	1,000	Offerings of coin are made, and a pleasure fair is held.
Do. ...	Hotti Abdul ...	Rámpúr ...	Ditto ...	1st Hár ...	1 day ...	1,000	Ditto.

Statement showing all Fairs of the Mooltán district—(concluded).

Name of *tahsil.*	Name of fair.	Where held.	Why held.	Date.	Duration of fair.	Estimated attendance.	REMARKS.
			HINDU FAIRS—*Concluded.*				
Sarai Sidhu	Mai Sampuran	Mai Sampuran ...	In honour of the holy man	15th Jeth ...	1 day ...	500	
Do. ...	Talib Shah ...	Sardárpur ...	Ditto ...	On the 1st Friday in Jeth and following days.	7 days ...	2,000	
Do. ...	Fázil Shah ...	Sardarpur ...	In honour of a shrine	2nd Friday in Jeth	1 day ...	300	
Do. ...	Shah Khalakwah.	Khatichu ...	Ditto ...	15th Hár ...	1 day ...	1,000	
Do. ...	Chak Naurang Shah.	Chak Naurang Shah.	Ditto ...	Chet ...	2 days ...	1,000	
Do. ...	Sayad Muhammad.	Kotla Bahá-ud-din	Ditto ...	Weekly on Friday	1 day ...	200	
Do. ...	Sarwar Shah	Fazal Shah ...	Ditto ...	On 2nd Friday in Jeth	1 day ...	5,000	

Chapter III, B.

Social and Religious Life.

Education.

Table No. XIII gives statistics of education as ascertained at the Census of 1881 for each religion and for the total population of each *tahsíl*. The figures for female education are probably very imperfect indeed. The figures in the margin show the number educated among every 10,000 of each sex according to the Census returns. Statistics regarding the attendance at Government and aided schools will be found in Table No. XXXVII. The distribution of the scholars at these schools by religion and the occupations of their fathers, as it stood in 1881-82, is shown in the margin. A newspaper is published in vernacular at the Albion Lithographic Printing Press. Some account of the indigenous schools will be found in Chapter V, Section A, under the head of education.

	Education.	Rural population.	Total population.
Males	Under instruction ..	155	231
	Can read and write ..	484	698
Females	Under instruction ..	4·4	8·7
	Can read and write ..	4·6	14·5

Details.	Boys.	Girls.
Europeans and Eurasians ..	10	9
Native Christians ..	1	5
Hindus ..	1,802	8
Musalmans ..	1,865	241
Sikhs ..	28	..
Others ..	8	..
Children of agriculturists ..	1,978	..
" of non-agriculturists	1,731	263

Character of the people.

Mr. Roe's estimate of the character of the people will be found quoted in Section D of this Chapter, where he discusses the indebtedness of the agricultural classes. Tables Nos. XL, XLI, and XLII give statistics of crime; while Table No. XXXV shows the consumption of liquors and norcotic stimulants.

Poverty or wealth of the people.

It is impossible to form any satisfactory estimate of the wealth of the commercial and industrial classes. The figures in the margin show the working of the income tax for the only three years for which details are available. In 1872-73 there were 744 persons brought under the operation of the Income Tax Act, as enjoying incomes in excess of Rs. 750. In the preceding year, all incomes above Rs. 500 being liable, there were 2,114 persons taxed. Of these bankers and money-lenders are returned as numbering 15; 381 were general merchants, 27 grain-sellers, 30 other merchants, 28 traders in food; and 51 miscellaneous traders. Of landed proprietors, 1,194 persons paid Rs. 9,785, or 42 per cent. of the total collections under the Act. Table No. XXXIV gives statistics for the license tax for each year since its imposition. The distribution of licenses granted and fees collected in 1880-81 and 1881-82 between towns of over and villages of under 5,000 souls is shown in the margin.

Assessment.		1869-70	1870-71	1871-72
Class I	Number taxed	2,357	2,168	1,157
	Amount of tax	23,439	42,276	6,932
Class II	Number taxed	386	632	646
	Amount of tax	7,936	17,064	5,564
Class III	Number taxed	167	263	302
	Amount of tax	9,398	10,257	6,768
Class IV	Number taxed	3	113	9
	Amount of tax	1,057	6,102	1,022
Class V	Number taxed	..	235	..
	Amount of tax	..	23,068	..
Total	Number taxed	2,913	3,411	2,114
	Amount of tax	41,830	98,767	20,286

	1880-81.		1881-82.	
	Towns	Villages	Towns	Villages
Number of licenses ...	564	622	501	656
Amount of fees	11,260	9,660	9,245	10,420

Chapter III, C.

Tribes, Castes, and Leading Families.

Poverty or wealth of the people.

But the numbers affected by these taxes are small. It may be said generally that a very large proportion of the artisans in the towns are extremely poor, while their fellows in the villages are scarcely less dependent upon the nature of the harvest than are the agriculturists themselves, their fees often taking the form of a fixed share of the produce; while even where this is not the case, the demand for their products necessarily varies with the prosperity of their customers. Perhaps the leather-workers should be excepted, as they derive considerable gains from the hides of the cattle which die in a year of drought. The circumstances of the agricultural classes are discussed below in Section D.

SECTION C.—TRIBES, CASTES, AND LEADING FAMILIES.

Statistics and local distribution of tribes and castes.

Table No. IX gives the figures for the principal castes and tribes of the district, with details of sex and religion, while Table No. IXA shows the number of the less important castes. It would be out of place to attempt a description of each. Many of them are found all over the Panjáb, and most of them in many other districts, and their representatives in Mooltán are distinguished by no local peculiarities. Some of the leading tribes, and especially those who are important as landowners or by position and influence, are briefly noticed in the following sections; and each caste will be found described in Chapter VI of the Census Report for 1881. The Census statistics of caste were not compiled for *tahsíls*, at least in their final form. It was found that an enormous number of mere clans or sub-divisions had been returned as castes in the schedules, and the classification of these figures under the main heads shown in the caste tables was made for districts only. Thus no statistics showing the local distribution of the tribes and castes are available. But the general distribution of the more important landowning tribes is broadly described below, while the area held by each is shown in the table on page 51. Of the whole area 17·6 per cent. is held by Hindus, nearly all of whom are Karárs; 74·8 per cent. is held by Muhammadans, the great majority of whom are Jats, to whom however the Sayads and Patháns bear a good proportion. The holdings of the Karárs and Sayads are scattered all over the district; so too are the Patháns and Biluches, who however are most numerous in Mailsi and Lodhrán, and very few in Sarai Sidhu. The localities of the Muhammadan Jats are very distinctly marked. The banks of the Rávi are held by the Siáls, including their sub-divisions of Hirájs, Sargánahs, Dáduánáhs, Panjwánáhs, &c. Along the Chenáb to the borders of the Mooltán *tahsíl* the villages belong mainly to Tahims and Taragars. In Mooltán the predominance of any one tribe of Jats is not so clearly marked; but in Shujabad the Khokhars, the Núns, Khákís, Lángs and Langás are found in more or less solid groups, and the remaining Chenáb lands forming the Hitár *chak* of the Lodhrán *tahsíl*, are held chiefly by Kachálás. In the rest of Lodhrán the groups are not nearly so well marked, but in Mailsi the Joyahs, with their sub-divisions, hold almost all the Sutlej lands. Behind these come extensive groups of Khichchís, Aráíns, Sayads, Patháns

and Mitrus, whilst the *bár*, as far as it is habitable, is occupied mainly by Langriáls :—

Statistics and local distribution of tribes and castes.

Statement showing holdings of each caste, in acres.

Tribes.	Mooltan.	Shujahabad.	Lodhran.	Mailsi.	Sarai Sidhu.	Total.
I.—Hindus.						
Brahmins, Karars and Gosains ..	2,155	2,623	4,596	5,403	1,382	16,159
Rajputs	67	..	..	..	..	67
Khatris	8,368	} 69,497	{ 4,395	} 95,924	{ 672	} 309,997
Karars and Sunars	36,793	}	{ 91,842	}	{ 2,566	}
Other Hindus	50	532	378	28	..	988
Total Hindus ..	47,373	72,652	101,211	101,350	4,620	327,206
II.—Muhammadans						
Sayads and Koreshis	65,867	12,354	37,403	60,165	37,759	213,548
Pathans	32,548	} 3,918	{ 15,079	} 51,824	953	124,135
Biluchis	78	}	{ 19,785	}		
Rajputs	199	..	..	..	..	199
Jats	193,747	96,222	242,189	391,605	106,859	1,030,622
Other Muhammadans	1,224	716	3,466	..	1,837	7,243
Total Muhammadans ..	293,663	113,210	317,872	503,594	147,408	1,375,747
III.—Village Servants. ..	2,815	1,983	5,068	1,808	342	12,011
IV.—Miscellaneous. (*i. e.*, Government, Companies, Europeans)	38,606	8,889	15,767	10,010	74,063	142,335
Grand Total ..	382,457	191,734	439,918	616,757	226,433	1,857,299

The Hindus.

Amongst the Hindus the Brahmins have no families of any note, except those of Talamba; they are nearly all the incumbents of small shrines or *dharmsálás*, and their property is mainly confined to the lands attached to these places. Of the Karárs and Khatrís there are a few families of respectability, but the only one of any eminence is that of the *chaudris* of Shujábád. Their ancestor, from whom they take the family name of Bablah, is said to have been the son of Bhati Ram, a great Lunar Rájpút. The Mooltán Bablahs say that their immediate ancestor came from Bhatner some 25 generations ago, and settled at Márinún in Shujábád, where he and his descendants held most of the villages in full proprietary right, although they were afterwards deprived of much of it by the Muhammadan Jats. This is probably untrue, as the Muhammadan Jats, by whom the Babláhs say they were dispossessed, are undoubtedly the original inhabitants of the country. The remaining Karárs and other Hindu landowners are chiefly settlers introduced by Sáwan Mal. Of the Arorars or Karárs of Mooltán, 34,388 returned themselves as Dakhana, 8,793 as Uttarádhi, and 6,455 as Dahra at the Census of 1881.

The *chaudris* of Shujábád.

The Sayads.

Amongst the Muhammadans the first place is taken by the Sayads. Some of the families, like the Makhdúm of Sher Sháh, possess considerable wealth; whilst others have little beyond the precarious income derived from the offerings of their disciples. Most of the leading Sayads have now taken the title of *makhdúm*, that is "servant," or guardian of the shrine of some illustrious ancestor. It is said that this general assumption of the title is quite a recent innovation, and that it was formerly taken by one or two families only. In Appendix II of Mr. Roe's Settlement Report will be found

Chapter III, C.

Tribes, Castes, and Leading Families.

Hasan Husainis

a pedigree table showing the descent of the different families, and their connection one with another.

The first in descent, and also in popular reverence, is the family of Hasan Husain. The common ancestor of all the Mooltán branches of this family was Abdul Kádir Giláni, who is known as their Pirán Pír. His father, 10th in descent from the Imám Hasan, married a descendant of the Imám Hasan, hence the name Hasan Husainís. The families are also called Giláni, from Abdul Kádir's residence at Giláni, in Persia. Abdul Kádir had two sons, Sáyad Alí Muhammad and Shekh Abdul Wahább. The descendants of the former, although they constitute the elder branch of the family, are much less illustrious than the younger branch. Their immediate ancestor Pír Habíb Ullah, *alias* Shah Habíb, was 17th in descent from Sáyad Alí Muhammad. He was born at Bághdád. In obedience to a vision, or more probably influenced by the example of his relative Pír Hámad Jehán Bakhsh, who had already gone to Uch, he migrated from his native country and came to the Sarai Sidhu *tahsíl,* where he founded the village of Bághdád on the Rávi, at the commencement of the Sidhnai reach, some 300 years ago. Here he died and was buried, and his *khánkáh* is preserved by his descendants, who still reside there. They once possessed considerable *jágírs,* but these were resumed in the Nawáb's time, and they now only hold a small grant in their own village, beyond the limits of which they are but little known. Their *mela* on 27th Sáwan is, however, said to be attended by some 5,000 persons. The other branch of the family is much more famous. Shekh Jehán Bakhsh, *alias* Shekh Muhammad Ghaus, 9th in descent from Shekh Abdul Waháb, migrated from Bághdád to Uch in the time of Taimúr. His son Pír Músá Pák Shahíd was born there in A.H. 952, A.D. 1535, and he was so renowned for his piety that his father, setting aside his eldest son, appointed him his successor. He was killed in a raid in A.H. 1010 or A.D. 1593 by one Sultán, a Langá. He was first buried at his father's feet at Uch, but, in obedience to a vision, his body was subsequently removed, first to the village of Mauza Hattí, and afterwards to Mooltán, where it was finally buried in the present *khángáh* near the Pák gate. Ever since this the head of the family has taken the title of *makhdúm.* The late Makhdúm Wiláyát Sháh was 10th in descent from Pír Músá Pák Shahíd; he was generally and deservedly respected; he has been succeeded by his eldest son Sadar-ud-din, a boy of 12 years of age. Under the Patháns this branch of the family was held in great favour and enjoyed large *jágírs,* but these were resumed under the Sikhs, and the only remaining grant is one-fourth of the village of Háfizwálá in Shujábád. There is a weekly *mela* at the *khánkáh* and the offerings are large, but so are the expenses of the *langar khánah,* or charitable kitchen. There is a third branch of the family, Shekh Músá Pák Dín. The grandson of Pír Músáh Pák Sháhíd had two sons, Shekh Abdul Kádir and Hámid Ganj Bakhsh. The younger son was raised to the *gaddí*; on this his elder brother separated from him, and took most of the property and was followed by most of the disciples. It was from this elder brother that Makhdúm Wiláyat Sháh was descended. The descendants of the younger brother were represented by Makhdúm Shams-ud-din, who died in December

Chapter III, C.

Tribes, Castes, and Leading Families.

1876. He has been succeeded by his son Makhdúm Muhammad Ghaus, to whom his father's *jágír* has been continued as an acknowledgment of the latter's sevices to Government.

Shams Tabrez.

Next in order is the family of Shams Tabrez, who, however, must not be confounded with the great Shams Tabrez, whose miracles, especially his bringing the sun closer to Mooltán, are so renowned. This Shams Tabrez was a man of some sanctity, but of no great note, and his descendants have become prominent mainly from their raising a conspicuous tomb in their ancestor's honour just outside the fort at Mooltán. This was erected by Mír Alí in A.H. 1194 (1787 A.D.), whilst Shams Tabrez is said to have been born in A.H. 560 or A.D. 657, and to have died in A.H. 675 or A.D. 733. The present *Sajjádah Nashín* is Lál Sháh, great grandson of Jattú Sháh, the second incumbent. Frequent *melás* are held at the shrine, and its income from offerings is estimated at Rs. 400 a year. Shams Tabrez's descendants are Shiáhs.

Sayads at Fázil Sháh.

Neither is the third family, that of the Sayads of Fázil Sháh and Muhammad Sháh in the Sarai Sidhú *tahsíl*, of any great consequence. Their immediate ancestor, Hisám-ud-din, was twenty-second in descent from Imám Nakí, who was eighth in descent from the Imám Hosen. He came from Bokhára to Uch, where he is buried. His son Násir-ud-din migrated to Nawábpúr in the Mooltán *tahsil*, and the family lived there for some time; in fact some of his descendants still live there and in the villages near. His great grandsons, Fázil Sháh and Dost Mahomed, came from Nawábpúr to the Sarai Sidhu *tahsíl*, where they founded the villages of Fázil Sháh and Muhammad Sháh. Fázil Sháh became a *faqír* and the disciple of the Sayad of Kot Adu in Muzaffargarh, but his *khángáh* is in his own village. The family hold no *jágírs*, but his disciples are numerous.

The Sayads of Rajahpúr.

Sayad Ahmad, another grandson of Imám Muhammad Nákí, is the ancestor of numerous branches of Mooltán Sáyads, the families of Mehr Sháh in Sarái Sidhu, both the Diwáns of Jalálpur, and the Sayads of Rájpúr, all tracing their descent from him through his great-great-great grandson Sáyad Jalál, Bokhárí, who was born at Bokhára in A.H. 595 (A.D. 1188), and in A.H. 642 (A.D. 1235) came to Uch, where he died in A.H. 690 (A.D. 1283). Mírán Sayad Ghulám Alí, a descendant of his eldest son Sáyad Alí, migrated to Rajahpúr, near Lodhrán, where his descendants have lived in obscurity ever since. Amír Haidar Sháh, the present representative of the family, has been made a *zaildár*. Makhdúm Násir-ud-dín, grandson of Sayad Sultán Ahmad, the second son of Sayad Jalál, had two sons, Ibn ud-din and Rukn-ud-din. Seventh in descent from the former was Sayad Sultán Ahmad Katál, a man of considerable renown, who was born at Uch in A.H. 949 (A.D. 1532). He visited Kahror in A.H. 970 (A.D. 1553), and became a disciple of Pír Alí Sarwar. He performed many miracles, amongst them the following, which gave him the name of Katál, or the destroyer. One day when his master was asleep, Sultán Ahmad, fearing that he would be disturbed by the noise of the birds, ordered them to be quiet; on their not obeying him, he commanded them to fall down dead, which they did immediately. In A.H. 990 (A.D. 1573) Sultán Ahmad went from Kahror to Jalálpúr, where he died and was buried in A.H. 1041 (A.D.

And Jalálpúr.

Chapter III, C.
Tribes, Castes, and Leading Families.
And Jalálpúr.

1624). He left three sons, Sayad Ibn-ul-din, Shekh Alam Pír, and Díwán Sháh Ismáíl. The eldest settled at Alípur, near Jalálpúr, and his descendant Díwán Abdul Hádí Sháh still lives there, and is the proprietor of the whole village. The other two brothers remained at Jalálpúr, and the elder called the younger his Díwán, a title which his descendants have taken ever since. The younger branch has become extinct in the male line, but the daughter of the last Díwán married the representative of the elder branch. Their son is the present Muhammad Ghaus, who calls himself Díwán Shekh Muhammad Ghaus, to commemorate the union of the two branches of the family. Both Abdul Hádí Sháh and Muhammad Ghaus are *zaildárs*.

Mehr Sháh of Sarai Sidhu.

Rukn-ud-din, the second son of Makhdúm Násir-ud-din, remained at Uch. His great grandson, Sáyad Ismáíl, was renowned for his piety and miracles, even in his childhood. One day he was displaying these to this father, who placed him on a small carpet and told him that wherever this carried him, there would be his home. Immediately the carpet rose in the air, and bore him to Chiniot in Jhang. There he lived for the rest of his days, doing many mighty works, and there he was buried. His tomb is still an object of much veneration. His descendants are called after him Simlánahs. The present representative of the family, Mehr Sháh, lives at Kauranga near Sarai Sidhu, but his father Shekh Hasan is still alive, and resides at Katálpur, a neighbouring village, but in the Jhang district. Mehr Sháh owns considerable estates in the Sarai Sidhu *tahsil*, and is *zaildár* of the whole tract beyond the Rávi, where his influence is almost supreme.

Sayads of Kahror.

Sayad Múseh Sháh, from whom descend the Sayads of Kahror and Sher Sháh, was a younger brother of the Muhammad Nákí mentioned above, and consequently like him eighth in descent from the Imám Hosen. He had two sons; Akil, the ancestor of the Kahror, and Sayad Ahmad Bilorí, the ancestor of the Sher Sháh Sáyads. The family resided for a long time at Mashíd, where they kept certain relics of the Prophet and his family carefully preserved in a chest. In the eleventh generation from Akil, his family was represented by two brothers, Hájí Fakir-ud-din and Sáyad Muhammad Sháh. They quarrelled about the possession of the relics, and it was agreed that the one who could open the chest should take them. Hájí Fakír-ud-din succeeded in doing so, and from this his descendants have taken the name of *Kufálís*. Fearing the enmity of his brother, he left Mashhad and came to Mooltán, where he remained till his death. His *khángáh* is by the Bohar gate. Five generations after this, Sáyad Muhammad Zindah Pír Sáhib accompanied the great Rukn Alim on "an itineration" to Kahror, where they converted the Joyahs. Rukn Alim returned to Mooltán, but the Sáyad settled at Kahror, and his descendants have lived there ever since. Wiláyat Sháh, ninth in descent from him, owns a good deal of land about Kahror, and possesses considerable influence. He was made a *zaildár* at the recent Settlement, and so were nearly all the representatives of the main branches of the Sáyads. Wiláyat Sháh died in 1880. He has been succeeded by his eldest son Ghulám Sháh.

Makhdúms of Sher Sháh.

The family of Sáyad Ahmad Bilorí, the second son of Sáyad Múseh Sháh, remained at Mashhad till A.H. 950 (A.D. 1533), when

Chapter III, C.

Tribes, Castes, and Leading Families.

Makhdúms of Sher Sháh.

Sháh Alí Muhammad, eleventh in descent from Sáyad Ahmad, migrated to Uch, and enrolled himself as a disciple of Makhdúm Muhammad Ghaus, father of Pír Múseh Pák Shahíd. By his master's permission he afterwards moved on to the present village of Sher Sháh, then called Ratanwáhan, and belonging to the Hammar Jats. Here he lived 12 years in retreat, and the well said to have been his home is still known as the *chahal-walah* (from *chehla*, a 40 days' fast). He performed many miracles, and is said to have made 125,000 converts, amongst them rulers of the country who took away the village from the Hammars and gave it to Sháh Alí Muhammad.* His *khángáh* is at Sher Sháh, the residence of Sháh Alí Muhammad, the present *makhdúm*. It is well endowed with *jágírs*, and the annual fair held in its honour in the month of *Chetr* is by far the greatest in the district. Disciples from all parts attend it with their offerings. A branch of this family is settled in the Jhang district.

Gardezi Sáyads.

The Gardezi Sáyads were once the most wealthy and influential in the district, and owned nearly the whole of the part of the Sarai Sidhu *tahsíl* through which the Lahore road now passes. The comparative ruin of that part of the country owing to the change in the course of the Rávi has led to their decay, but they still possess a very considerable influence and position. They are also known as Hosainís, from their descent from Imám Hosain, and their attachment to the Shiáh faith. The family formerly lived at Bághdád, and they were there known as "Baghdádi." Their immediate ancestor was Sáyad Mahammad Debách, great-great grandson of the Imám Hosain. It was his son, Sáyad Muhammad Alí, who migrated from their original home at Medina to Bághdád. His great grandson Abdullah removed from Bághdád to Gardez, and his great grandson again, Shekh Muhammad Yúsuf, who was born at Gardez in A.H. 450 (A.D. 1033), made a further move to Mooltán in A.H. 481 (A.D. 1064). He immediately acquired great reputation for sanctity and miracles, and received large grants of land. He died in A.H. 531 (1114 A.D.) though the couplet on his tomb gives the date A.H. 547 (A.D. 1130). Shekh Muhammad Yúsuf the second, eighth in descent from his name-sake, died without male issue, and his daughter married Makhdúm Sáyad Muazíz-ud-dín, a descendant of Zaid Shahíd, another grandson of the Imám Hosain. Hence the family are sometimes called Zaidís. Most of the Gardezí *jágírs* were resumed by the Sikhs, but large estates are still held by various branches of the family. These branches are Makhdúm Shekh Rájú, the head of the family, the families of Murád Sháh, of Koraí Biloch, late Chief Judge of Baháwalpur, Haidar Sháh of Salárwáhan in Sarai Sidhu, Hamád Sháh of Mooltán, a member of the Municipal Committee and owner of large estates, Muhammad Sháh of Adamwáhan, and Syad Mustafá, Sháh of Muradpúr, between Mailsi and Kahror. These branches all descend from a common ancestor down to 7 or 8 generations ago, and they require no separate history.

O[illegible] A[illegible]

The above families comprise all the Sayads of note in the district. There is a family of some wealth near Guven in the Shujábád *tahsíl*,

* It is probable that the village was really only given in *jágír*, and that the story of the gift is an invention to account for the present proprietary right of the *makhdúms*.

Chapter III, C.

Tribes, Castes, and Leading Families.

Murád Bakhsh, Bhútah.

represented by Ashak Sháh, *zaildár*, who call themselves Sáyads, but the old Sáyads say that their claim rests simply on this, that in Sáwan Mal's time, Narang, father of Ashak Sháh, obtained some villages which had formerly belonged to the Sayads, and that he then went to Uch, where on paying Rs. 200 or 300 he obtained a pedigree, proving him to be a Bokhárí Sayad. It is very probable that the descendants of Murád Bakhsh, Bhútah, of Khairpúr, close to Mooltán, may hereafter develop into Sayads. Murád Bakhsh did good service both at the siege of Mooltán in 1849 and in 1857. He has been generously rewarded, and he has shown great energy in improving his grants, and generally pushing his way. He has now dropped the appellation of Bhútah, the name of the great Jat tribe to which he belongs, and taken that of Pírzádá. He says that an ancestor of his, Háfiz Dewán Sáhib, came from Jhang as a missionary and succeeded in making many converts. He returned to Jhang, and his *khángáh* is in the Chiniot *tahsíl* across the Chenáb. His descendants continued to visit Mooltán, and Nizám-ud-dín, fifth in descent from him, settled here and was buried at Ghotah Sharíf near Mooltán. Nizám-ud-dín's nephew, Amír Bakhsh, father of Murád Bakhsh, followed his uncle, and obtained grants of as much waste as he could get. These have been improved by Murád Bakhsh into his present fine property.

The Kureshís.

The Kureshís, though often confounded with the Sáyads, should rather be considered their first cousins. They belong to the family of the prophet, but are not his lineal descendants. Háshan, the great grandfather of Muhammad, was the head of the tribe, and most of the present Kureshís descend from him, the Mooltán families of Baháwal Hak being his representatives in the direct male line. Various accounts are given of the derivation of *Kureshí*. One is that Kuresh is a mountain of Arabia, and that the tribe took its name from it. Another is that some of the tribe slew a fabulous monster called *Kursh*. The present position of the family is due to the fame of Baha-ud-dín Zikriya, *alias* Baháwal Hak, a full account of whom is given in Griffin's *Punjab Chiefs*, pages 490-94. It is there stated that Sultán Husen, ninth in descent from Háshim, accompanied Mahmúd of Ghazní to India, and settled at Kot Karor in Leiah, but other accounts say that the first to leave Mecca was Kamál-ud-dín, fifth in descent from Sultán Husen, and that he went first to Khorásán, then to Mooltán, and then settled at Karor. It is most probable that Sultán Husen stayed temporarily at Karor and then returned to Arabia, for his son Shams-ud-dín was called Karorí. Baha-ud-dín, *alias* Baháwal Hak, was born at Karor on 28th Ramzán A.H. 566 (A.D. 1149). After travelling over the greater part of Muhammadan Asia, he settled at Mooltán, where he died at the age of 100 years. His fame as a saint was very great, and one of his miracles has exercised an influence down to the present day. He by a word raised a ship which had foundered; hence the boatmen of the Chenáb and Indus still invoke Baháwal Hak as their patron saint in all difficulties. His grandson Rukn-álam was at least as great a saint as himself, and each of them has a fine shrine in the fort of Mooltán. Rukn-álam left no children, and he was succeeded by his brother Shekh Ismáil Shahíd, whose great great grandson, Shekh Yúsuf, was elected ruler of Mooltán. The position of

The Kureshis.

makhdúm remained with the direct descendants of Shekh Yúsuf till the death of Shekh Bháwan Sháh and his brother Shekh Kabír without issue. They left three sisters, who all succeeded as *makhdúmahs*. The last of them, Makhdúmah Bíbí Rájí, adopted a daughter Bíbí Wiláyat Khátún, who married Shekh Hasan Sháh, the representative of another branch of the family descended from Sháh Khwájah Khalíl, a brother of Shekh Yúsuf's, and their son Shekh Mahmúd was appointed *makhdúm* on the death of Makhdúmah Bíbí Rájí, and Ranjít Singh granted him a cash pension of Rs. 3,000, which was reduced to Rs. 1,600 by Sáwan Mal. Shekh Mahmúd was *makhdúm* during the siege of Mooltán in 1849 and the disturbances of 1857. He rendered great services to Government on both occasions, and was rewarded with large grants both for himself personally and for his shrine. His son Baháwal Bakhsh is the present *makhdúm*. There is another branch of his family living at Ghauspur in the Sarai Sidhú *tahsíl*, which is descended from Fatteh Muhammad, a younger brother of Makhdúm Shekh Kásim Muhammad, the great-great grandson of Shekh Yúsuf, and is therefore really the representative of the family in the male line. Its head is Rukn-ud-dín, the eldest son of Muhammad Háiát, but its most prominent member is his uncle Murád Sháh. Both Muhammad Háiát and Murád Sháh rendered valuable assistance to Government in 1857, and they received suitable rewards.

Pathans.

The first settlement in the district of Patháns in any numbers took place during the reign of the Emperor Sháh Jahán, after the ineffectual efforts made by the princes Aurangzíb and Dára Shekoh to recover Kandahár from Persia (A. D. 1649-53). The Pathán adherents of the empire then flocked in some numbers into India, and many of them were located by royal grants in this and the neighbouring districts. The position of the refugees was subsequently much improved by the accession of one of their number, Záhid Khán, to the post of Nawáb of Mooltán (see *ante*, p. 25). From this time for more than a century and a half Afghán influence was predominant throughout the Mooltán province, and the members of the tribe largely profited by its political predominance. But when Mooltán fell before Ranjít Singh in 1818, their position became much altered. Naturally Muzaffar Khán had found his most devoted adherents among his own tribe, and these, equally naturally, were objects of special dislike to the Sikh agents who took over charge of the province. During the first two years, accordingly, of Sikh rule many Patháns left the district, finding their claims lightly regarded by the new rulers. Under Sáwan Mal, however, their position again improved. He enlisted them in large numbers into his army ; and many who had left their estates after the fall of the city were encouraged to return. The Pathán landholders do not as a rule engage personally in agriculture, and have a reputation for idleness and lack of thrift.

The Pathán families.

The Pathán families of note are those of Muhammad Bairám Khán Khudáka, Sádik Muhammad Khán Bádozaí, and Ghulám Kádir Khán Khágwání. There are also a few other families of respectable position. The ancestor of Bairám Khán was Khuda Dád Khán, the son of Khizar Khán, ancestor of the Khizar Khel, and the grandson of Saddú Khán, the founder of the Sadduzai family. His

Muhammad Bairám Khán.

Chapter III, C.
Tribes, Castes, and Leading Families.
Muhammad Bairám Khán.

descendant Sultán Háiát Khán being defeated by the Sháh of Persia, came to Mooltán to obtain the help of the Emperor of Delhi. He was promised assistance, and received a *jágír* of Rs. 15,000. He lived near the Shísh Mahal in Mooltán. He died in A.H. 1114 (A.D. 1697), and was succeeded by his son Bákar Khán, who died in A.H. 1173 (A.D. 1756). Bákar Khán was first succeeded by his brother Abdul Azíz Khán, the *súbadár* of Mooltán, whose descendants live in Dera Ismail Khán. On the death of Abdul Azíz Khán, the succession reverted to Muhammad Sharíf Khán, son of Bákar Khán, who died in A.H. 1189 (A.D. 1772), and was succeeded by his son Dín Muhammad. Dín Muhammad was made *súbadár* of Mooltán by Taimúr Sháh: he restored Sultan Háiát's house, and made the family garden which is still kept up. He died in A.H. 1221 (A.D. 1804), and was succeeded by his son Alí Muhammad Khán, an educated and cultivated man, who held a *jágír* of Rs. 3,000 in Mooltán, and Rs. 2,000 in Dera Ghází Khán. His property was plundered on the taking of Mooltán, but Ranjít Singh gave him a *jágír* of Rs. 1,800, and a pension of Rs. 1,200. He died in A.H. 1256 (A.D. 1839), and was succeeded by his eldest son, Muhammad Bairám Khán, who was confirmed in his father's *jágírs*. On annexation half the *jágírs* were resumed, and the remaining half converted into a cash pension, but Bairám Khán was taken into Government service, and he was *tahsíldár* and Superintendent at the Regular Settlement. He made two pilgrimages to Mecca, and built a fine mosque in Mooltán. At the end of 1876 he divided his property amongst his sons and retired to Mecca for good. He was a man of very high character, but he kept himself rather in the background from a feeling that the fortune of the family was hardly equal to its descent.

Sádik Muhammad Khán Badozai.

So full an account is given of this family in Griffin's *Punjab Chiefs*, pages 495-501, that it is only necessary to mention here the most prominent facts in its history. The first of its members to permanently settle in Mooltán was Muhabbat, whose father Báí Khán accompanied Nádir Sháh in his expedition of A.D. 1738. His great grandson, Sháh Muhammad Khán, greatly distinguished himself in A.D. 1772 and 1779 in the service of the Nawábs of Mooltán, for which he was rewarded with a *jágír* in Dera Dínpanáh and Dera Ghází Khan. He was succeeded by his son Muhammad Sarfaráz Khán, who was soon afterwards killed in battle, and left no issue. He, however, left two brothers, Abdul Samad Khán and Háfiz Muhammad Sarbuland Khán, who immediately began to quarrel about their inheritance. The Emperor of Kábul, to whom they appealed, directed that it should be divided equally, but Sarbuland Khán could only succeed in obtaining the Mooltán estates. Sarbuland Khán was a faithful servant of the Mooltán Nawábs, and afterwards of the Sikh Governor, and he was active and loyal throughout the campaign of 1848-49. He died in A.D. 1853, and was succeeded by his son Sádik Muhammad Khán. Sádik Muhammad Khán was born in 1814, and was employed at an early age in important duties by Diwán Sáwan Mal. On the breaking out of Múlráj's rebellion he distinguished himself by refusing the oath of allegiance to him, and he rendered signal service throughout the campaign, at the close of which he retired on a pension of Rs. 2,000 a year, besides receiving

Chapter III, C.

Tribes, Castes, and Leading Families.

Sadik Muhammad Khán Badozai.

other substantial marks of Government's favour. He again came forward in 1857, and after the close of the disturbances, re-entered for a time Government service, acting as *tahsíldár* in the different *tahsíls* of the Mooltán district. He has now finally retired, and his pension has been exchanged for a *jágír*, the most valuable portion of which is the village of Lutfábád, about eight miles from Mooltán, where he resides.

The Khágwánís.

The Khágwánís are said to derive their name (from *Khog* or *Khok*, a wild boar) from their exploits in pigsticking. The first branch of the family to appear in Mooltán was that of Málik Sháh Pál, who with his brothers accompanied Hamáyún some 300 years ago. His descendant, Alí Muhammad Khán, served under the Emperor Ahmad Sháh, and was made *Súbadár* of Mooltán, a post which he held till A.H. 1170 (A.D. 1753), in which year he constructed the Walí Muhammad canal. He was dismissed for oppression, but he refused to obey the order deposing him, and seized and imprisoned Nawáb Shúja Khán who had been appointed to succeed him. For this he was put to death by the Emperor; there are no descendants of this branch in Mooltán; the ancestor of the persent Khágwánís is Lál Khán, who came from Ghazní some 300 years ago. His son, Hájí Alí Muhammad Khán, was governor of Sikandarábád under Nawáb Muzaffar Khán. Mustafá Khán, the son of Hájí Alí, commenced his career in the Baháwalpur State, but he soon became one of Sáwan Mal's *kárdárs*, and on Múlráj's rebellion he took the side of the English and supported it to the utmost of his power. He again did good service in 1857, when he was *tahsíldár* of Mailsi. For this he received considerable grants of land and other rewards. He died in A.D. 1869, leaving a son Ghulám Kádir, who has followed in his father's footsteps, and is distinguished as a loyal adherent of Government. The daughter of Ghulám Mustafá Khán married her cousin Abdul Rahmán Khán, and received one-third of her father's property. Another branch of this family, represented by Atta Muhammad, lives at Dúrpúr and Dínwah near Tibba, in the Mailsi *tahsíl*. Atta Muhammad Khán and Ghulám Kádir Khán are second cousins.

Bábars.

Amongst the Afgháns of lesser note are four families of the Bábar clan; they say that their ancestor Bábar was the brother of Saddú Khán, the ancestor of the Saddúzaís. The first of these four families is that of Ghulám Haidar Khán, of Chouki Sohba Khán in Mailsi. His ancestor, Ján Muhammad Khán, came from Hirát in the time of Taimúr, and acquired much land by purchase. Muhammad Yár Khán, father of Ghulám Haidar Khán, took service under Nawáb Sarfaráz Khán. On the capture of Mooltán by the Sikhs he retired to Mankerah, and entered the service of the Nawáb of that place. His son on the taking of Dera Ismail Khán first went to Sindh, but eventually took service under Sáwan Mal, on whose death he went to Baháwalpur. On annexation he joined a cavalry regiment as *jamadár*, and was promoted to *rissáldár* for his services in 1857. On his retirement soon afterwards he received a pension of Rs. 300 a year, and grant of 500 acres at Chouki Sohba Khán. Another family is that of Mahmúd Khán and Ghulám Nabí Khán, who live at Gagrah, just across the Chenáb in Muzaffargarh, but own two villages in the Mooltán district. Their ancestor, Abdúl Karím

Chapter III, C.
Tribes, Castes, and Leading Families.

Babars.

Khán came with Ahmad Sháh; his descendants settled in Mooltán and Muzaffargarh, and acquired considerable estates. They lost them all at the Sikh conquest, but partially recovered them on the establishment of English rule. Mahmúd Khán and Ghulám Nabí Khán both entered rhe British service, and distinguished themselves in it. The former has a pension of Rs. 25 a month; and the order of merit, with its allowance of Rs. 16; the latter received a grant of 100 acres of land. Hak Nawáz Khán, the representative of the third family of Bábars, is still a *rissàldàr* in the 15th Cavalry. His great grand-father came to Mooltán in the time of Shúja Khán. He owns some land in the suburbs of Mooltán, but the home of his family is in Muzaffargarh. The fourth family, that of another Hak Nawáz Khán of Sadárpúr, in Mailsi, is of no note.

Taríns and other Afgháns.

There are two families of the Tarín tribe, but neither of them are of any mark. One of them is that of Abdulla Khán, of Akbarpúr and Umrpúr, whose ancestor came to Mooltán from Kandahár as a merchant in the time of Ahmad Sháh. The other is that of Núr Muhammad, of Wáhí Dáúd Khán in Lodhrán. His ancestor also came as a merchant, but his sons took service with the Nawáb of Baháwalpur, to whom the Lodhrán *tahsìl* was then subject, and they acquired their lands by grants from him. The only remaining Afghán family of any position is that of Rahmat-ulla Khán, Bámozaí. His ancestor, Abdul Karím Khán, came from Khorásán in the time of Ahmad Sháh; two of his sons settled in Dera Ismail Khán, and the third, the ancestor of Rahmat-ulla Khán, in Mooltán. The Mooltán branch prospered, and is said to have acquired 10 villages in Mooltán and 15 in Muzaffargarh, but it lost them all at the Sikh conquest, and at annexation it only succeeded in recovering in Mooltán the villages of Kachúr and Nawa Bastí.

Bilochís.

The Census returns give the total number of Bilochís at 18,547, but among them are no families of note. The only prominent men are Muhammad Khán of Choukí Súbe Khan, in Mailsi, a *zaildàr*; Salem Khán, of Havely Násir Khán, in Lodhrán, also a *zaildàr*; Sirdár Khán, of Jaggúwálah and Musá Khán of Dera Saláb, both in Lodhrán. No pedigrees or family histories are kept by these men, but they say that the Bilochís gradually came into the district through Muzaffargarh and Dera Ghází Khán. When Sháh Husen, Langá, ruled in Mooltán, Soráb, a Biloch, took service under him, Sháh Husen gave him a *jàgìr*, and thus attracted others of his countrymen. Of the Bilochís of Mooltán, the principal tribes returned at the Census of 1881 were: Rind 6,008; Korái 2,695; Lashárí 1,865; Gopang 992; Chándia 872; Hot 842; and Jatoí 506.

Jats and Rájpúts.

The remainder of the district is held almost entirely by Muhammadan Jats and Rájpúts, of whom the chief tribes are separately noticed below. The figures given on the opposite page show the principal Jat and and Rájpút tribes returned at the Census of 1881. A return furnished by the Deputy Commissioner of the district shows no less than 368 clans, all acknowledging the generic name of Jat. It is probable, however, that this term is not always applied in this district in a strictly ethnological sense; but, as in Muzaffargarh and Dera Ghází Khán, has a secondary and wider application to all agricultural and pastoral tribes indigenous to the country, including Rájpúts and

Jats and Rájpúts.

Awáns, as distinguished from the immigrant tribes of Sayad, Pathán, Koreshí, and others of a similar social status. The Jat tribes are all professed Muhammadans, but are converts from Hinduism, and occupy a lower stratum in society, looked down upon by the tribes of genuine Muhammadans, by whom they have been over-ridden since the time of Aurangzíb. The accession of Sikh rule found the majority of them scattered in lawless bands throughout the wilder portions of the district, living principally by robbery and cattle-lifting. Sáwan Mal and his son succeeded in imposing a certain amount of order, and under their administration many of the Jats became steady agriculturists; but the wilder portions of the district still maintained a practical independence of control, and little real impression was made upon the lawless habits of the robber tribes. Now, under British rule, they are gradually taming down, but retain for the most part their preference for a pastoral over an agricultural life. The best cultivators among the Jat tribes are found in the Mooltán *tahsíl*. In Shujábád, the richest portion of the district, they have to a great extent been ousted from actual possession by Hindu capitalists, though still retaining an interest in the soil. Here they sometimes cultivate as tenants of the Hindu interloper. The Jats of the Mooltán *tahsíl* are described by Mr. Morris "as making up the bulk of the population from time immemorial; they have always been steady cultivators, and may rank as fairly industrious, almost invariably cultivating themselves." Elsewhere they devote their energies principally to pastoral or perhaps less innocent pursuits, leaving the cultivation of their estates to inferior Hindu castes. The following table shows the principal tribes returned by the Jats and Rájpúts of Mooltán at the Census of 1881:—

JATS.		JATS.	
Name.	*Number.*	*Name.*	*Number.*
Awán	1,178	Jotia	473
Athwál	435	Dhúdhi	1,875
Bhattí	9,682	RAJPUTS.	
Bhuttá	4,845	Bhattí	14,890
Tahím	2,821	Panwár	4,995
Chuán	505	Janjúha	896
Síal	560	Joyá	5,059
Saprá	451	Chauhán	2,134
Khag	917	Dhúdhí	1,356
Khokhar	963	Siál	23,037
Langá	2,190	Kharral	500
Chaddhar	1,287	Khíchi	2,573
Samrái	2,214	Khokhar	236
Her	658	Híráj	37,185
Panwár	2,563	Chaddhar	638

Siáls.

The Siáls with their various sub-divisions occupy nearly all the villages on both banks of the Rávi in the Sarái Sidhu *tahsíl*. These sub-divisions are the—(1) Sargáná, (2) Hiráj, (3) Sanpál, (4) Dadúáná, (5) Dúáná, (6) Kamlánah, (7) Panjwáná, (8) Lasráná, (9) Loháná, (10) Daulatánáh, (11) Nakiánáh, (12) Mirálí. They all take their names from various descendants of the common ancestor Siál, whose pedigree table is given in Appendix III of Mr. Roe's Settlement Report. Siál was a son of Rai Shankar, a Panwár Rájpút. He migrated to the Punjab, and was converted to Islám by Bábá Faríd of Pákpattan in the time of the Emperor Alá-ud-dín Ghorí, or about 1250 A.D.

Chapter III, C.

Tribes, Castes, and Leading Families.

Siáls.

He married the daughter of Bahádar Khán, a local chief and his sons established themselves in Chauntra, and then across the Chenáb in Jhang, over which they ruled more or less independently down to the time of Ranjít Singh. Ahmad Khán, the then chief, was a direct descendant and male representative of Siál; after repulsing one or two attacks, he was at length defeated by the Maharájáh, and his country annexed. He was, however, granted a *jágír*, and his descendants still reside and hold land in Jhang. Nothing is distinctly known as to when or why the various sub-divisions crossed into this district. Their coming can hardly be called a migration; in former times there was no real boundary between Mooltán and Jhang; or rather the Rávi and both its banks belonged more properly to the latter district. At present the leading Siáls are amongst the Sargánáhs, Sháhámad and Salábat, *zaildárs*, and Nusrat Khán, between whom and the Sargánáhs there is great enmity. Amongst the Hirájs, Sultán and Shujáwal, both *zaildárs*; amongst the Sanpáls, Walí Dád, of Chaughatta Panjwánah, was a man of note. He was made a *zaildár* at the beginning of the recent Settlement, but he died soon afterwards, and his grandson, a minor, has been appointed to succeed him under the guardianship of a near relative.

Tahíms.

Along the first part of the Chenáb, and next to the Siáls, come a number of Tahím villages, but the tribe is found here and there in all the *tahsíls*. There are also Tahíms in Chiniot, where they were of old the proprietors. They say that their origin is Arabia, where their ancestor was an immediate follower of Hasn and Hosen. Their more immediate ancestor, Sambhal Sháh, is said to have come to Mooltán on a marauding expedition some 700 years ago, to have killed the local chief, and to have reigned in his stead for 40 years, when he was killed in his turn and the tribe scattered. Qádir Baksh of Mamdál is at present the chief man of the tribe, and he has been made *zaildár* of the Tahím villages.

Traggars.

The Traggars hold a small group of villages next to the Tahíms. They say they are Bhattí Rájpúts, and take their name from their ancestral home, Taragarah in Bikánír. They f[illegible] migrated to Jhang, but about 150 years ago, on account of quar[illegible] with the Siáls, they left the district and settled under their lead[illegible] Hasta, Mulah and Salábat, on the banks of the Chenáb, where t[illegible] now hold seven villages on the Mooltán and five on the Muzaffarg[illegible] side.

Wains.

The Wains and Bosan Jats next hold a few important villa[illegible] The Wains are said to be Hajua Rájpúts, and their ancestor Wa[illegible] came to the Punjab in the time of Firoz Sháh. Their leading m[illegible] Malak Massú is a *zaildár*, and so is Ghulám Hosen the headman [of]

Bosans.

the Bosans. The ancestor of the latter tribe is said to have come from Haidarábád in Sindh as a disciple of Baháwal Hak, and to have received from his master some of the land which the latter obtained from the ruler of Mooltán.

Khokhars.

Beyond the one great family of Khokhars there are no *zemíndárs* of this tribe, or if there are any, they are men of no note or position. The Khokhars are a branch of the Awáns,* descended from Kutb Sháh, who, with his brother Wirj, migrated from Arabia to Ghazní.—

* This is Mr. Roe's account, doubtless taken from local tradition. But see the Punjab Census Report of 1881. The Khokhars are probably Rájpúts; see also of the same report for an account of the Awáns.

Chapter III, C.

Tribes, Castes, and Leading Families.

Khokhars.

Their father Ausl Sháh was said to be 15th in descent from an alleged son of Muhammad, called by some Zahír Qásim and by others Muhammad Khaífah. Kutb Sháh and his brother accompanied Mahmúd of Ghazní in his invasion of India, and the tribe are said to have obtained their name of Awáns from acting as auxiliaries (*ma'ún*) to the invading army. Kutb Sháh settled at Sukesar in Sháhpúr, and the tribe generally spread itself along the banks of the Indus, where its members are still known as Awán Kárés, a name which is also occasionally given to them in the Sháhpúr district. Khokhar was the eldest son of Kutb Sháh, whose descendants soon spread into the adjoining districts. The first of them to come to Mooltán was Básí, who founded Balel, and subsequently other villages in its neighbourhood. Under the Emperor the family extended their estates very considerably, but they lost them nearly all under the Pathán Nawábs. In the time of Ranjít Singh, Malak Piára, father of Malak Umr Alí, by giving through Sardár Harí Singh, Narúa, a *nazaránah* of Rs. 3,000, and two horses, obtained an order for the restoration of all the villages the Khokhars had held under the Emperors and in accordance with it he recovered several estates. But it was pointed out by the local officers that if the order were fully carried out it would create a revolution; consequently an amended order was passed, that the Khokhars were to retain the estates they had already recovered, but that the work of restoration was to go no further. They thus retained the villages they still hold. The descent of the family from Malak Piárá is as follows :—

Malak Piárá.

- Malak Umr Alí.
  - Khudá Baksh.
  - Allah Baksh.
  - Sultán Baksh.
  - Karim Baksh.
  - Amir Baksh.
  - Muhammad Baksh.
  - Qádir Baksh.
- Malak Hájí.
- Malik Nijábat.
  - Iláhí Baksh.

Malak Umr Alí was a man of energy and intelligence, and he rendered good service both in 1849 and in 1857. He died in December 1873, just after the recent Settlement commenced. His sons are by three different wives, the eldest three by the first wife, Karim Baksh and Amir Baksh by the second, and the two youngest, one of them a mere boy, by the third. They are first rate *zemíndárs*, and under their and their father's care their villages have improved wonderfully. Unfortunately all their prosperity threatens to be ruined by family dissensions, the families of the first and second wife being at bitter enmity. The *zemíndárí inám* held by Malak Umr Alí for life has been continued by the special order of Government to Khudá Baksh as the head of the family.

Marals.

The Marals* also are represented by a single family, that of Sher Baksh of Kasba. They are by descent Muhammadan Rájpúts and the founders of Kasba. Abdul Nabí, Rái Baman, and Rái Khair Muhammad are said to have come from Karnál some 400 years ago. Soon after this migration the heads of the family dropped the title of Rái and called themselves *chaudhrís*. Chaudhri Sultán Baksh,

* More commonly called Mandals in Karnál, though Maral is used also by the family.

Chapter III, C.

Tribes, Castes, and Leading Families.

Marals.

grand-father of Sher Baksh, was one of the greatest men in the district; he used to be known as the *zamíndár* who could afford to keep horses. By the extravagance of his son, Chaudri Karim Baksh, the property became greatly involved, and the present owner, Chaudri Sher Baksh, has brought it to the verge of ruin. It has lately been taken charge of by the Deputy Commissioner, and is still so valuable that under proper management all encumbrances will b paid off. But in the hands of Sher Baksh its recovery would be hopeless.

Núns.

The Núns are the predominant Jat tribe of the Shujábád *tahsíl*. They are a branch of the Bhattí Rájpúts, and one account of the origin of their name is, that their first convert to Muhammadanism was one Nánú. But the establishment of the tribe is generally said to have been due to the conversion of their ancestor Ráj Dúhan by Makhdúm Jahániah of Uchh. The Núns originally lived near Delhi, and probably for some service rendered to the Emperors, their leading men took the title of Ráná. Some 400 or 500 years ago, Ranjá, Jáná, Ali Sher, Umr, Langá, Wilán, the ancestors of the Mooltán Núns, migrated from Delhi, and founded the village of Bangálah in Shujábád. Their colony throve and new villages were founded in the neighbourhood, which all benefited greatly by the opening of the Gajjú Hattah, Bakhtúwáh and Dhúndhu canals in the time of Nawáb Muzaffar Khán. The Núns now hold almost entirely the villages of (1), Gajjú Hattah, (2), Basti Mitthú (a sub-division of Bangálah), (3), Halálwajah, (4), Gardézpúr, (5), Bangálah, (6), Satbúrja, (7), Marí Nún, (8), Bastí Dád, (9), Nasírpúr, (10), Paunte, (11), Todarpúr. Their leading man is Ráná Ahmad Yár, *lambardár* of Basti Mitthu and a *zaildár*. He is a man of the highest character, widely and deservedly respected.

Driggs.

The Driggs were originally Jáms, and lived near Makrán in Bilúchistán. Jám is a title commonly taken by tribes who trace their origin to Sindh. When the Jáms became powerful in Sindh, the Driggs followed them. The clan was soon split up into sub-divisions, but the Driggs still retain the name Jám as a sort of honorific title. They are found all along the Chenáb, but they are most numerous to the south, in the Hitár *chak* of Lodhrán.

Langás.

The Langás occupy the tract along the Chenáb to the south of the Núns, forming the remaining river villages of Shujábád and the Hitár *chak* of the Lodhrán *tahsíl*. Shujaat Khán, the ancestor of the tribe, is said to have come from Arabia some 600 years ago, and founded the village of Shujaatpúr. They are mentioned in Tod's Rajasthán in the history of Jaisalmer's wars with the people of the Bárí Duáb. The claim to Arab descent is merely what is made by all Muhammadan tribes who forget that they were converts from Hinduism, as the Awáns, Khokhars, &c. Murad Bakhsh Bhut already mentioned (page 56), says that the Bhuttas, La Kharals, Harals, and Lalls of Sháhpur are all of the same c from the Panwár Rájpúts. The chiefs of the tribe were alwa ready to take service, in return for which they received *jágírs*, and were generally favoured. Rái Sehra, *alias* Kutb-ud-dín Sháh, the supplanter of Shekh Yúsuf, referred to in Chapter II, was of this tribe, and the present Langás say they are his descendants. This is very

doubtful, for until enquiries were made at the recent Settlement they knew nothing about him. But Lál Khán and Sher Khán of Shújaatpúr are the direct descendants of Shújaat Khán. They are both men of much influence and considerable wealth. Other leading Langás are Ghulám Muhammad of Jehánpur and Yáran Khán of Raka Hatti.

Joyáhs.

The Joyáhs hold most of the lands along the Sutlej in the Mailsi *tahsíl*, where they own 63 villages. They are said by Mr. Morris, the Settlement officer of 1858, to have come from Sindh, but they themselves say they were originally Rájpúts from Bikaner. Possibly both accounts are correct; the tribe may have come from Bikaner through Sindh. They are generally believed to have been converted by Rukn Alam 500 or 600 years ago, but their own account places their conversion considerably earlier. They seem to have long occupied both banks of the Sutlej, and the country beyond as far as Bhatner. Cunningham identifies them with the Yandhiyas, who were probably in the same part of the country as early as Alexander's time. They say that 800 years ago Rai Jalál-ud-din and Rái Kamál-ud-din, two brothers, and Fateh Khán were sent by the Emperor of Delhi against Khár, a Bhattí chief then ruling at Kahror. They killed him, and destroyed his fort, and then permanently occupied the country, which they continued to hold in farm under the Emperors. Jalál-ud-din remained at Kahror whilst Fateh Khán settled at Fattehpúr. They were soon followed by others of their tribe, the Salderahs colonizing Lúddan and the surrounding country, and the Daultánahs, under their leader Budan, founding the village called after him. For some time the greater part of Mailsi and Lodhrán was under the Dáúdpútrás of Baháwalpúr, and the Joyáhs then lost their semi-independence, but retained their proprietary rights. Rái Jalál-ud-din changed his title of Rái for that of Malak, which his descendants have maintained. His family has continued to reside at Kahror, and has always been regarded as the head of the Joyáhs. His descendants, Allah Rakha Khán and Mahmúd Khán, two brothers, were very prominent men at annexation, but their successor, Din Muhammad Khán, is a spendthrift. He has no children. Budan Khán's descendant is Ghulám Muhammad of Lúddan, a man of much energy and good character. The head of the Salderahs is Fatteh Khán of Salderah. He is a very respectable old man.

Aráins.

The Aráins are not often found in this district in their usual position of cultivators or market gardeners; but as proprietors they hold a large cluster of villages near Mailsi, besides a few in Mooltán and Lodhrán, and they are considered fully the equals in rank of the other tribes. They belong to the general family of Aráins, but they can give no particular account of their own history. Many of the Jalandhar and Lahore Aráins say they are descended from the Mooltáni Aráins. Their leading men call themselves *mullas*. The most prominent of the Mooltán Aráins are Sardár Muhammad of Kikri in Mailsi, Núr Muhammad of Jailah in Lodhrán, and Hasan Bakhsh of Jallah in Mailsi; the first two are *zaildárs*. So was Mullah Isa, of Kabirpúr near Mooltán, who was a man of very considerable influence, owing to his personal character. He has been succeeded by his son Ramzán.

Chapter III, C.

Tribes, Castes, and Leading Families.

Khichchis.

The Khichchis are said to be descended from Khichchi Khán, who was a ruler in Ajmír, and afterwards obtained possession of Delhi, from which he was driven out by the Muhammadan princes. They are a branch of the Chauháns. His descendants Táim and Vadan migrated to these parts in the time of Chaughatta, the time of the last reigning family of Delhi; Táim founded Faddah, and Vadan Shergarh. They fought with the Joyáhs, who were then paramount in these parts, and took from them their villages near Mailsi, 20 of which they still hold. Their chief is Nur Muhammad of Faddah, who has been made a *zaildár*. He is said to be the sole survivor of the Khichchis of Faddah who were all massacred in a fight with some Sikh troops.

Mitrus.

The Mitrus own another small circle of villages to the north of Mailsi. They say that they are Bhatti Rájpúts, and that their ancestor Mitrú came from Bikaner 200 years ago and founded the village of Tibba. It decayed, and 100 years afterwards Saran left it and founded the present village of Mitru. The tribe now own—(1), Mitru, (2), Morí Mitru, (3), Táragar, (4), Lál Saggú, (5), Qázíwáh, (6), Chak Qázíwáh, (7), Chak Sohú, (8), Gújar, (9), Malikpúr, (10), Alampúr. Sikandar Khán, the late head of the Mitrus, was a man of position and influence. So was his successor Khair Muhammad; the present chief, who was made a *zaildár* at the commencement of the recent Settlement. But in 1875 he misconducted himself in some proceedings in the district courts, and this led to his removal from his *zaildàri* and from the district committee, and to his being deprived of his chair in *Darbár*.

Langriáls.

The Langriáls are the great nomad tribe in the *bàr*, that is, they are great in the sense that they are almost the only inhabitants of these desolate tracts. Their ancestor Langriál is said to have been a descendant of a Solar Rájpút Rái Derám. Yasu, 15th in descent from Langriál, is said to have been the first Muhammadan convert. This is the account given in the history of the Sialkot district by Munshi Amin Chand, Extra Assistant Commissioner. But the Mooltán Langriáls say that their ancestor was a Brahmin of Bíkáner named Charan, whose descendant, Charnji, was converted by Sultán Samrárí and took the name of Shekh Abdulláh. His two brothers remained Hindús, and their descendants are still found in Bíkáner. Ghiás-ud-dín, a descendant of Shekh Abdulláh's, was renowned for his charity, and especially for the extent of his public kitchen, or *langar*. Hence his descendants were called Langriáls, and from the conversion of their ancestor by Sultán Samrárí, they also acquired the name of Samrárí for one of their sub-divisions, or *gots*. Sháh Jání Sultán, son of Ghiás-ud-dín, migrated to Kashmír and became its prince. In Chaughatta's* time his descendant, Sultán Amír, came to Ráwalpindi, where the Langriáls are still numerous. They afterwards moved on to Jhang, and after fighting with the Siáls, settled at Kamália in Montgomery. From thence their two chiefs Wágá and Rahmán passed to the banks of the old Beás. Máchia, the descendant of Wágá, still lives at Kamándi near their old station, and Walídád, the descendant of Rahmán, lives at Sharaf near the Sutlej, which has been

* Changatta is the name popularly given to the late Imperial family of Dehli.

granted to them both in *jágír* for services in 1857. Máchia is, however, the undoubted chief of the clan; he has done good service from time to time, and he has been liberally rewarded. He is a *zaildár* both in Sarai Sidhu and Mailsi.

SECTION D.—VILLAGE COMMUNITIES AND TENURES.

Village tenures.

Table No. XV shows the number of villages held in the various forms of tenure, as returned in quinquennial Table No. XXXIII of the Administration Report for 1878-79. The following figures show the classification of estates made at the recent Settlement :—

Tahsil.	I.—Undivided.		II.—Divided.										
			A.—*Held on shares.*						B.—*Held on possession.*			
			I.—From the foundation of the village.		II.—Originally joint.							
	I.—Held by a single proprietor.	II.—By a community.	Ancestral.	Customary.	Ancestral.	Customary.	III.—Shares partly lost sight of.	Total held on shares.	I.—From foundation.	II.—Changed from other types.	Total on possession.	Total.
Mooltan ..	22	38	..	..	2	4	10	16	96	93	189	265
Shujabad ..	3	5	..	..	..	..	..	..	75	1	76	84
Lodhran ..	1	3	..	..	..	5	..	5	154	8	162	171
Mailsi ..	25	106	1	..	5	8	10	24	69	223	292	447
Sarai Sidhu ..	12	35	4	..	7	..	..	11	128	67	195	253
Total ..	63	187	5	..	14	17	20	56	522	392	914	1,220

The village community in Mooltán.

In the case, however, of the greater number of the *bhayáchárá* villages, which constitute some 75 per cent. of the whole, the village community, in the ordinary acceptation of the term, can scarcely be said to exist; they being for the most part mere aggregations into a fiscal circle of independent plots of cultivation, having no further bond of union than that of joint responsibility for the revenue imposed by the British Settlement system. Of this nature are all the estates of the interior. In the immediate neighbourhood of the rivers, communities are found which fall naturally under the definitions applied to the upper part of the province. In the remainder of the district, cultivation is found only where wells have been sunk or means provided for canal irrigation, and is therefore scattered for the most part in isolated plots, each of which was independently cleared by its occupant, and under native governments bore its own assessment without reference of any kind to neighbouring plots. Under these circumstances it was not without protest from officials of influence that at the time of Settlement joint responsibility for the revenue was generally imposed. The question was, however, settled in favour of maintaining the usual procedure. The opinion of Mr. Cust, Financial Commissioner, upon the subject is given as follows, in his letter forwarding Mr. Morris' report for sanction :—

"Another question of interest, on which the Commissioner (Colonel Hamilton) holds very decided opinions, is the alleged absence in this district of village communities which would justify the enforcement of

Chapter III, D.

Village Communities and Tenures.

The village community in Mooltán.

our village system of revenue administration. This is a very important subject; and divergence from fixed principles at this period would leave a permanent trace, and hamper the Deputy Commissioner in his collections. Mr. Morris classes his villages in the well known families of *zamíndári* and *bhayáchárá*, sometimes a little complicated from the changes of possession, but still maintaining the chief characteristics. I am glad to find that along the rivers, where population and cultivation have attained a degree of permanence, 'common land' exists and regular communities: here we have thus proof that there is nothing in the physical features of the country or in the customs of the people to render this development impossible. As we retire from the rivers, and approach the *bár*, or barren dorsal ridge, we lose all trace of these communities. Each well has its separate owner unconnected with its neighbour—often a separate hamlet or hut, with no common land, interests, or homestead, no ties of race, religion, or kindred. But this is just what we should expect: these people are the pioneers of civilization, the squatters of the primeval forest. Gradually, however, the ramparts of a municipality will be formed round them; we have now given them a defined village area, and a joint property in the jungle, to the exclusion of others. The owners of patches and wells are represented by headmen; the ties of fellowship and mutual advantage will draw them together; the law of joint responsibility will bring with it the right of pre-emption. As cultivation, population, and wealth extend, these infant communities will develop themselves on one of the well known types—perhaps streaked by some local peculiarities. Such has been the mode by which in the old settled tracts of the Gangetic valley the village community has come into existence, and by an innate vitality has survived empires and dynasties."

As yet the change here anticipated does not seem to have occurred; for Mr. Roe writes in 1880:—

"In the tracts near the rivers the lands generally belong to Jat tribes, and here are found regular village communities, some of which still hold their land in common, whilst others have divided it, and in most cases lost all trace of the original shares. Away from the rivers the villages are generally merely a collection of wells which have been sunk in the neighbourhood of a canal or in the more favourable spots in the high lands. In these there has never been any community of interest; in very many cases there is not even a common village site; each settler has obtained his grant direct from the State, sunk his well, and erected his homestead on it. Under our Settlements the waste land between these wells has been recorded as a matter of course, *shámlát deh*, but originally the well-owners had no claim to it whatever."

Hak zamíndári.

But whilst this is the origin of many or most of the villages, there were other tracts where a particular tribe or family was undoubtedly recognized as holding a *zamíndári*, or proprietary right over all the lands cultivated or uncultivated which we call a *mauzah* or village. This right was not however recognized under native rule as an exclusive one. If the *zamíndár* could not bring his waste under cultivation, the State had no hesitation in authorizing outsiders to do so, but the new settler had to pay a quit rent to the *zamíndár* of half a ser in the maund as *hak zamíndári*, and if the *zamíndár* was a strong man, he exacted an installation fee in addition. It often happened that the *zamíndár* would himself introduce outsiders and allow them to sink wells; in this case too the quit rent was fixed at the rate of half a ser in the maund, and an installation fee, under the name of *jhuri* or *siropa*, was almost invariably taken. Sometimes

Chapter III, D.

Village Communities and Tenures.

Hak Zamìndàrì.

the agreement was that the *zamìndàr* should be proprietor of half the well sunk, the sinker being proprietor of the other half, and occasionally having a permanent right of occupancy as tenant of the *zamìndàr's* half. This custom is known as *adhlàpì*, and it prevails chiefly in the south-west corner of the district. Near Luddan in the south-east a custom is sometimes met with by which a man sinks a well for the *zamìndàr*, acquiring thereby no rights in the soil, but merely a claim to a portion of the gross produce, generally half a ser in the maund, as long as the well is in use. This due is generally spoken of as *kasúr sil chah*, and its recipient as the *kasùrkhwàr*.

The *hak mukaddamì.*

The *hak zamìndàrì* described in the preceding paragraph is almost inseparably connected with a similar due known as the *hak mukaddamì*. We have seen how outsiders were introduced, either by the *zamìndàr* himself or by the State, and how they had to pay *hak zamìndàrì*. But it often happened when the *zamìndàrì* family was numerous and their land limited, that no outsiders were introduced. The various members of the family divided the lands amongst themselves, or, as was more commonly the case, each man brought what he could under cultivatiom without regard to any regular shares. Each became full proprietor of his own holding, but he had to pay half a ser in the maund as *hak zamìndàrì* or *mukaddamì* to the head of the family. Sometimes, however, where the head was weak or there was a dispute, the due was not levied. There can be little doubt that the *zamìndàrì* and *mukaddamì* are one and the same due, that the original form was the *mukaddamì*, and that this was somewhat the same as our *lambardàr's* fee. Indeed, this is admitted by most men who are not directly interested in maintaining the contrary. This due would originally be collected by the headman from all the proprietors, but when the number of outsiders became sufficiently great to give the headman a fair income from them alone, he would cease to collect from the proprietors of his own tribe. He would also do so when he was weak and required their support; for instance, when a young man wished to succeed his father to the exclusion of a richer or more powerful uncle; and in extreme cases he would promise not only to exempt his kinsmen, but even to divide amongst them the due collected from others. When this last practice has become firmly established, the due has ceased to be a *mukaddamì* or headman's fee; it has become the property of a whole family or *zamìndàrì hak*, and the family speak of themselves as *zamìndàrs* or *àla màliks*, in distinction to the settlers of other tribes, who are *adnà màliks* or *chakdàrs*. Along the Chenáb and in the west of Lodhrán this change has been complete, and the half ser in the maund is always spoken of as *hak zamìndàrì*. But in the greater part of Mailsi it is still known as the *mukaddamì*, and in more than one village the Settlement Officer has been asked to abolish it on the ground that it is merely a *lambardàr's* fee, and as such has been superseded by our *pachotrà*. But whatever may have been the origin of the due, it has been levied ever since the introduction of English rule separately from the *pachotrà*, and it has now become by prescription a *zamìndàrì* right; in fact it would be admitted to be so in most villages, where it is still known as the *mukaddamì urf zamìndàrì*.

Chapter III, D.

Village Communities and Tenures.

Chakdárs.

The settlers introduced by the State, or by the *zamíndár* himself, into a *zamíndár's* village, are known as *chakdárs*, from *chak* the wood-work of the well. The name is also applied to those proprietors of the *zamíndár's* tribe who have continued to pay the *hak zamíndárí* or *mukaddamí* to their chief or chief's family, and it is sometimes even extended to settlers who have sunk wells under direct permission of the State in tracts where there has never been any one to claim a *zamíndárí* due. Thus when Díwán Sáwan Mal made his new canal, the Diwánwáh, through the Mailsi *bár*, he gave direct grants to settlers, proclaiming at the same time that if any one could establish a claim to *zamíndárí* it should be allowed ; no such claim was established, but still the settlers were generally described as *chakdárs*. The connection of the name from the wood-work of the well, and the payment of the *zamíndárí*, gave rise to the idea that the *chakdár* owned the well only ; in fact that he was a capitalist who had sunk a well for the *zamíndár*, who remained the true owner of the soil, and could buy out the *chakdár* on repaying him the money expended. This idea was still further encouraged by the fact that the *chakdár* sometimes did not cultivate himself, but let his well to tenants, and it occasionally happened that the tenant was one of the old *zamíndárs*. There was consequently rather a tendency at the commencement of our Summary Settlements to regard the *chakdár* as an interloper who, by the power of money, was ousting the old family from its original rights. But this was quite a mistake ; the *chakdár*, whether he got his title from the *zamíndár* direct or through the State, always held his land in full proprietary right, subject only to the payment of a quit rent in the shape of the *hak zamíndár*. Of course if he abandoned his land it reverted to the *zamíndár*, but this was because the latter was the owner of all the waste land, and not in virtue of any contract entered into at the time of purchase. On the other hand, any right of cultivation enjoyed by the *zamíndár* was acquired by a distinct contract between him as tenant on the one side and the *chakdár* as proprietor on the other ; the terms of this contract might vary from a tenancy-at-will on a full rent to a permanent occupancy on a quit rent, but the original rights of the *zamíndár* in no way influenced his position as tenant.

Kasúr.

Under native rule the revenue or *mahsúl* was taken in kind, and as the rate approached in many cases that of a full rent, there remained, after deducting the cultivator's and the State's share, but a small fraction for the non-cultivating proprietors. This fraction was called *kasúr*, the plural of (*kasar*), and meaning "fractions." When this fraction was small it would be hardly worth the proprietor's while to go perhaps some distance to personally superintend the division of the crops ; the rent he received from the cultivator with one hand was immediately almost entirely paid away with the other in the shape of the Government revenue, and he would remain responsible for any balances. Hence the custom would naturally spring up of the *chakdár* allowing his tenant to pay the Government share direct to the Government official, and to give the *chakdár* a fixed allowance in lieu of the actual balance. It is this fixed allowance which is now, and has for some time been, generally known as the *hak kasúr* ; and its general rate is two sers in the maund, or one-twentieth of the gross

Chapter III, D.

Village Communities and Tenures.

Kasúr.

produce. The *chakdàr* who received this allowance is called the *kasùr-khor* or *kasùr-khwàr*, the eater of the *kasùr*, but the word is often corrupted into *kasùr-khwàh*. From his *kasùr* the *kasùrkhwàr* has to keep in repair the brick-work of the well, and pay the *hak zamìndàrì* of half a ser in the maund, if there is one. Under the system of fixed cash assessment the permission to engage direct for the Government revenue has grown into a very valuable right; the *chakdàr* finds that he cannot recover his former position, and the only right left to him is the nominal ownership of the well, and the right to receive *kasùr*. This *chakdàr* who has lost his right to engage is now the person generally meant by *kasùr-khwàr*, and this position has frequently been conferred as a compromise on a man who has claimed a well of which he or his ancestor was undoubtedly the original proprietor, but from all possession of which he has long been excluded. When the Mooltáni Patháns were allowed on annexation to bring forward claims which would ordinarily have been barred by the law of limitation, in cases in which the claim was made out, it was almost invariably compromised in this way. The word *kasùr* is however still used occasionally in its original sense of the profits of the *chakdàr* who pays the revenue himself, and such a man is also occasionally known as *kasùr-khwàr*.

True classification of Mooltán village tenures.

It will be seen from the above remarks that the ordinary classification of tenures into *zamìndàrì*, *pattìdàrì* and *bhayàchàrà* quite fails to show the real manner in which land is held in this district. Here we may rather divide the villages into two main groups:—

I. Unconnected with a *zamìndàr*, *i.e.*, villages found by groups of settlers who have received grants direct from the State.

II. Originally owned by *zamìndàrs*.

The last group would contain many sub-divisions. First are the villages which are still and always have been held entirely by the members of the old tribe; next to these are the villages in which outsiders have been admitted, but the old tribe has retained an undoubted supremacy, levying the *hak zamìndàrì*, and maintaining an exclusive right to the waste outside wells; the third group would be the villages in which this supremacy has been considerably weakened, many of the *chakdàrs* have become independent, the *zamìndàrì* is only taken from a few wells, and the exclusive right to the waste has been lost. This last result has been chiefly caused by our system of record; we have treated all waste outside wells as *shàmilàt deh* as a matter of course; we have accepted it as an undoubted axiom that all *shàmilàt deh* land must be divided amongst all the *khewatdàrs hasb rasad khewat*, and by *khewatdàrs* we have meant all men paying direct to the *lambardàr* a portion of the cash *jama*. The fourth and last group of villages would be those in which both the *hak zamìndàrì* and special claims to the waste have entirely disappeared.

Proprietary tenures.

Table No. XV shows the number of proprietors or shareholders and the gross area held in property under each of the main forms of tenure, and also gives details for large estates and for Government grants and similar tenures. The figures are taken from the quinquennial table prepared for the Administration Report of 1878-79.

Chapter III, D.

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Village Communities and Tenures.

Proprietary tenures.

The accuracy of the figures is, however, exceedingly doubtful; indeed land tenures assume so many and such complex forms in the Panjáb, that it is impossible to classify them successfully under a few general headings. Several forms of quasi-proprietary tenures, and of the dues received under them, have already been described in the pages immediately preceding, under the headings *haka zmíndárí*, *hak mukaddamí*, *chakdár*, and *kasúr*.

Háthrakhái.

In connection with the *hak zamíndárí* it is necessary to notice the arrangement known as *háthrakhái*, or "placing under protection." The *zamíndárí* was usually levied by the *zamíndár* or his tribe from outsiders whom he or they had admitted. But sometimes a community of *zamíndárs*, to obtain a lighter assessment, would voluntarily create this right against themselves in order to put themselves under a man of power and influence. By a fictitious sale they professed to sell him their entire village; he became the nominal proprietor, and by his influence obtained a light assessment; this was paid by the villagers, and the new proprietor received from them the usual *hak zamíndárí* of half ser in the maund, but beyond this he had really no right in the village. On the establishment of English rule these nominal proprietors made great efforts to become real ones; where their true position was known, they were of course unsuccessful; but it occasionally happened that the court trying the claim was not very well acquainted with the peculiar features of the Mooltán tenures, and that the piece of paper on which the *háthrakhái* arrangement was recorded was taken literally and accepted as a full deed of sale. When this has been done, the evil is past remedy, the "proprietor" has obtained decree after decree on the basis of the original order, but the old *zamíndárs* still fight against what they consider his encroachment, and much confusion and ill-feeling is the result.

Mortgages. *Lekhá mukhí.*

Besides the ordinary usufructuary and collateral mortgage, there is the mortgage known as *lekhá mukhí*. The literal meaning of this is an account based on oral agreement, from *lekhá* an account, and *mukh*, the face or mouth. Under this arrangement, whether there has been an original loan or not, the money-lender pays the revenue and receives in return the *mahsúl* or Government share of the produce, or more generally the *mahsúl* and *kasúr*, *i.e.*, the whole of the proprietor's share. But this is not taken in lieu of interest, or at a fixed rate; it is credited to the proprietor's account, and interest, generally at 12 per cent. per annum, is charged on all money advanced, or balances due. The transaction would appear at first sight to be nothing more than an ordinary running account; but it is something more, for it is now generally attested by a registered deed and an application for mutation of names, and whilst it lasts the money-lender receives a definite share of the produce, and not merely whatever the proprietor may choose to pay on account. On the other hand, even in these cases the revenue authorities and the law courts have refused to give the transaction the full force of a regular mortgage, or to recognize the right of the mortgagee to be kept in possession of the *mahsúl*, no matter for how long a time, until the debt is completely paid off. It would be impossible to lay down any general rule declaring the exact period for which the mortgage should be enforced, and no attempt has been made to do so; every case has

Chapter III, D.

Village Communities and Tenures.

Mortgages. *Lekhá mukhí.*

been looked at on its merits; a proprietor would not be supported in raising a considerable loan on this kind of mortgage, and then immediately repudiating it; but it has been considered that when the transaction has lasted a reasonable time, the proprietor may put an end to it, and resume possession of his share of the produce, paying his revenue himself and referring the mortgagee if he claims a balance to an ordinary suit in the Civil Court on account of money lent.

Extra charges or *habúbát.*

Jholí.

Besides the regular dues of *hak zamíndárí* and *kasúr* there are other items which the proprietors have occasionally received, and which, since the introduction of English rule, they have tried hard to establish as dues. The first of these is *jholí*, which means literally the skirt of the coat. Afer a partition of the crops, at which the proprietor was present in person, he held out the skirt of his coat and asked for a present; the tenant generally put in 4 or 5 sers. This was of course a purely voluntary offering, but in one or two villages at the Regular Settlement the proprietors succeeded in getting it recorded as a right, and on the strength of the record obtained subsequently judicial decrees confirming it. A similar due under the name of *dala*, which means a child's skirt, was sometimes, but very rarely, taken; the *tobrah*, or horse's nose bag, filled with corn, and repesenting the feed of corn given freely by the tenant, was more common. The *lai gadhah* was a heap or bundle of corn (*gadhah*), representing the wages (*lai*) paid to the labourers at harvest.

Dala.

Tobrah.

Lai gadhah.

Kiráyá.

The *kiráyá* was not common, but it was exacted in some villages under the pretence that the tenant was bound to convey the proprietor's share of the produce home for him. Sometimes the proprietor would claim to have his share weighed at 42 sers to the maund; this exaction was called *batálah*, from *betalis* = 42. If the proprietor lived near, he sometimes took 2 or 3 *marlahs* of green crop for fodder; this was called *kiárúh*, from *kiárí* a flower-bed, a patch of ground. Sometimes *amlánah*, or a contribution to the pay of the proprietors' *amlah* or accountants, and sometimes, but much more rarely, a charitable contribution, or *bhíkh*, was demanded occasionally. The proprietor levied from each well Rs. 2 or 3, or the equivalent in corn, under the head of *malbah*. The above are known under the general name of *habúbát*. They were essentially voluntary offerings, and where they still exist they can only be claimed as a right where this right has been judicially established.

Batálah.

Kiárah.

Amlánah.

Bhíkh.

Malbah.

It must not be supposed that even in former times these *habúbát* were taken as a rule, or that they were ever all taken in any one village. The extent of the taking depended entirely on the strength of the proprietor. Unless he were powerful and influential, he would get nothing at all; if he were a man whom the tenant wished to conciliate, he would get his *jholí* and *tobrah*, and perhaps one or two other items, pretty regularly.

On the subject of rights in common land Mr. Roe writes as follows:—

Right to common land.

"In most cases the well is the unit of proprietary right, and all waste outside well boundaries was in Sikh times the property of the State. When under English rule village boundaries were regularly demarcated, a certain portion of the waste outside wells was included

Chapter III, D.

Village Communities and Tenures.

Right to common land.

"in them, and as it belonged to no one, it was recorded *shámilát deh.* "As a matter of course it was provided in the *wájib-ul-arz* that this "should be divided *hasb rasad khewat*, but, as a matter of fact, "*zamíndárs* have gone on sinking wells in this waste, and considering "the land in them their exclusive property. But clever men who have "learnt our rules have now and then come forward and claimed "partition according to the terms of the *wájib-ul-arz* They were "most certainly not entitled to it, but how was their claim to be met? "Was the well-sinker to be referred to a regular suit to alter the old "entry, or could we consider that the sinking of the well was a fact "which had occurred since Settlement, within the meaning of Section "19 of the Land Revenue Act, and alter the record by entering "the land as the property of the sinker of the well? After some "discussion it was agreed, and the ruling was confirmed by the "Financial Commissioner, that we had full power to do so, and that it "was the proper course for us to pursue. But of course we could only "take action in the individual cases brought to our notice. There may "be wells still erroneously recorded as common, or wells may be sunk "hereafter. I think the Deputy Commissioner would hardly have "power to pass a summary order that these should be recorded the "property of the sinker. If a petition were given for partition, th "sinker would be the person who disputed the correctness of the ent "in the Settlement report, and he would have to be referred to a ci "suit under Section 20 for its correction. He would probably obtai "decree without difficulty, coupled of course with the condition that "any partition of the remaining waste, the land included in his w "should be deducted from the share to which he would otherwise h "been entitled. This is the principle on which I have disposed "these cases during Settlement."

Riparian custom.

The following is an account of the riparian boundaries and rig in alluvial deposits on the three rivers of this district—Rávi, Cher and Sutlej—as ascertained at the Revised Settlement.

Rávi.—On the upper part of the Rávi, *i. e.*, from the point wh it enters this district to Sarai Sidhú, the recorded custom (1). That the deep stream of the Rávi is the boundary between villa (2). If a piece of land is transferred in a recognisable form b change in the stream from one bank to the other, it belongs to original estate from which it was separated by river action. If the river form an island recognisable as part of an old villag belongs to that old village. If the island be formed graduall shall belong to that village from which it is separated by narrowest channel. (4). New land thrown up by the river belong the village to which it accrues, and to the indivdual to whose la accrues. (5). If any land is formed in the river which is not sh in either the maps of the Revenue Survey or of the Settlement, deep stream decides to which village it belongs. (6). The ownership land thrown up in front of two or more villages is decided by protrac ing the joint boundary. On the lower Rávi there is no cust between the 24 villages on opposite banks. The boundaries of th villages were fixed at Settlement in the bed of the river, and no la can possibly appear which will not be within the boundaries of village or another.

Chapter III, D.

Village Communities and Tenures.

Riparian custom.

Chenáb.—On the Chenáb the custom varies. Between the following villages on the Mooltán and Muzaffargarh banks respectively, exists the custom of the deep stream, the details of which are given with the six customs above recorded for the upper Rávi :—

Mooltán Bank.	*Muzaffargarh Bank.*
1. Muhammadpur	Binda Sargana.
2. Chirágh Béla	Binda Sargana and Chirágh Béla.
3. Béla Sháh Din	Chabútrá Adhá.
4. Thal Najíb	Alípur.
5. Nek Machhí	San Malot.
6. Salárwáhan	San Malot and Ránáwahan.
7. Akbarpur	Pakká Sandíla.

It is remarkable that these villages are all on the upper Chenáb immediately after its junction with the lower Rávi, on which a different custom prevails. On the rest of the Chenáb the following are the customs. (1). Land removed by river action from one bank to another, whether recognisable or not, or whether removed by avulsion or by gradual action, belongs to the original village from which it was taken. (2). New land formed in the bed of the river belongs to that village in whose Revenue Survey or Settlement map the land is. (3). When asked how the ownership of land not recorded in any map would be decided, the *lambardár* replied :—"We "know our own boundaries in the river bed, and will be bound by "them. If there be such a village the boundaries of which are not "laid down, *munsifs* shall decide the ownership." (4). New land formed in front of two or more villages shall be awarded to each village as laid down in the map. If in excess of what is recorded in the maps, arbitrators shall decide.

Sutlej.—On the Sutlej, as well as on the two other rivers, two sets of customs were recorded. The position of the villages recording the separate customs was remarkable. On the two ends of the Sutlej in this district, *i.e.*, from Sharaf to the eastern boundary of the district, and from Adamwahan to the junction of the Sutlej with the Chenáb, the villages on the Mooltán bank and the villages on the opposite or Baháwalpur bank recorded that the deep stream rule was the basis of their customs, as already described on the Rávi. The villages on both banks in the central part of the river stated that their customs were word for word the same as those already given for the rest of the Chenáb, other than those villages observing the deep stream rule.

Tenants and rent.

Table No. XVI shows the number of tenancy holdings and the gross area held under each of the main forms of tenancy as they stood in 1878-79, while Table No. XXI gives the current rent-rates of various kinds of land as returned in 1881-82. But the accuracy of both sets of figures is probably doubtful ; indeed, it is impossible to state general rent-rates which shall even approximately represent the letting value of land throughout a whole district. The table given at page 76 shows the number of tenancy holdings and areas, and the prevailing rates of rent as ascertained at the recent Settlement. There was not in this district, as was the case in some others, any wholesale creation of occupancy tenants at Regular Settlement under the twelve years rule ; occupancy rights being, as a rule, conferred only on those who were entitled to them by custom as *chakdár* or breakers-up of waste land.

Chapter III, D.

Village Communities and Tenures.

Tenants and rent.

Classified statement of tenants' holdings for the district of Mooltán.

Name of tahsil.		Tenants with rights of occupancy. Cash rents.	Tenants with rights of occupancy. Rents in kind.	Tenants not having rights of occupancy. Cash rents.	Tenants not having rights of occupancy. Rents in kind.	Total of tenants paying in cash.	Total of tenants paying in kind.	Percentage of total cultivated area held by tenants.	Mode of payment of rent found to exist. In cash. At revenue rates only.	At revenue rate, plus malikana.	At a consolidated rent.
Mooltan	Holdings	48	975	44	4,926	92	5,901	..	30	21	41
	Area	749	18,654	249	59,627	998	73,281	64	184	522	291
Shujabad	Holdings	64	238	7	2,657	71	2,895	..	28	36	6
	Area	1,107	4,533	94	37,461	1,201	41,994	63	704	347	90
Lodhran	Holdings	202	290	353	3,230	555	3,520	..	130	425	..
	Area	1,028	4,556	2,669	36,138	3,697	40,694	38	1,281	2,416	..
Mailsi	Holdings	11	318	15	5,824	26	6,142	..	..	3	23
	Area	19	3,776	4	73,933	23	77,709	54	..	13	10
Sarai Sidhu	Holdings	11	275	..	3,935	11	4,210	..	..	..	11
	Area	361	3,270	..	37,806	361	41,076	63	..	..	361
Total of whole District	Holdings	336	2,096	419	20,572	755	22,668	..	186	485	81
	Area	3,264	29,789	5,016	2,44,965	6,280	2,74,754	55	2,229	3,299	752

Name of tahsil.		Mode of payment of rent found to exist—continued. In kind. Rates of *kamins'* fees per 100 mds.	Share of grain taken by proprietors after deducting of *kamins'* fees. ½	4/9	2/5	⅓	Total paying ⅓ or more.	2/7
Mooltan	Holdings	8 to	1,591	3	799	1,472	3,879	126
	Area	12 p. c.	14,486	16	9,011	23,816	47,683	2,697
Shujabad	Holdings	8 to	509	..	944	1,102	2,555	32
	Area	18 p. c.	5,412	..	14,735	18,061	38,208	514
Lodhran	Holdings	8 to	..	..	..	..	..	..
	Area	15 p. c.	3,820	25	5,707	29,063	38,615	188
Mailsi	Holdings	8·5 to	272	127	673	4,105	5,197	193
	Area	18 p. c.	3,805	2,310	9,272	49,712	65,393	2,808
Sarai Sidhu	Holdings	8 to	2,807	..	224	924	3,955	..
	Area	13 p. c.	25,016	..	1,988	8,236	35,240	..
Total of whole District	Holdings	8 to	5,179	130	2,640	7,603	15,586	351
	Area	18 p. c.	52,539	2,351	40,713	1,28,838	2,25,139	5,917

Name of tahsil.		Mode of payment of rent found to exist—concluded. In kind. Share of grain taken by proprietors after deducting of *kamins'* fees. ¼	2/9	⅕	⅙	Other rates.	Total paying less than ⅓	General average of proprietors share.
Mooltan	Holdings	984	308	516	62	22	2,022	83·9 p.c.
	Area	12,726	2,400	6,415	1,037	587	25,598	
Shujabad	Holdings	264	3	41	..	..	340	37 p.c.
	Area	3,284	18	170	..	..	3,786	
Lodhran	Holdings	..	..	..	..	..	..	35·4 p.
	Area	1,898	13	..	..	..	2,079	
Mailsi	Holdings	618	46	54	3	51	845	34·(
	Area	8,165	435	695	13	494	12,316	
Sarai Sidhu	Holdings	189	..	52	14	..	255	41 p
	Area	3,515	..	2,192	129		5,836	
Total of whole District	Holdings	2,055	357	665	79		3,562	35·6
	Area	29,588	2,866	9,472	1,179	1,081	40,615	

Rent rates.

The general position of tenants has already been discussed in preceding pages. It will be sufficient here to notice the rents t

Rent rates.

pay to the proprietors. Consolidated cash rents are almost unknown. A few tenants are recorded as paying at revenue rates only, but they are practically proprietors who took possession of abandoned wells at annexation. In most cases such men were recognized as proprietors, but in a few cases in the *tarafs* of Mooltán and in the Shujábád *tahsíls* the Government thought it better to retain a nominal proprietary right, giving the man in possession a perpetual right of occupancy, and making him liable for nothing beyond the *jama*. Along the banks of the rivers, but more especially in the south-west corner of the districts, new land is commonly given to those who will break it up, on condition that they pay the revenue and give *lichh* to the original proprietors. *Lichh* is said to be a Mooltán word equivalent to *málikáná*, and its rate is from ½ to 10 sers in the maund of the gross produce, and the persons paying it should perhaps be regarded rather as sub-proprietors than as tenants. The ordinary rents in kind paid by the tenants may be classified as follows:—

Percentage on the total area on which kind rents are paid, of land paying (after deducting the allowance of fodder and village expenses).

	Per cent.
½ the gross produce	19·1
⅖th do. do.	14·8
⅓rd do. do.	46·9
Other rates more than ⅓rd	1·1
Total paying ⅓ or more ...	81·9
¼th the gross porduce...	10·7
⅕th do. do.	3·4
⅙th do. do.	0·4
Other rates less than ⅓	3·3
Total paying less than ⅓rd ...	17·8
Total ...	99·7

The ½ rate is paid for good *sailáb* land, and for very good canal land which can be well irrigated by flow with very little trouble; the ⅖th rate is paid for the same kinds of land less favourably situated, or of somewhat inferior quality. By far the most common of all the rates in kind is ⅓rd. This is paid for ordinary canal and well land, for land irrigated by canal *jhalárs* alone, and for the inferior *sailáb* and *paggá* or flow canal lands. It is also occasionally paid for uperior simple well lands, but the usual rate for these is ¼th in the *ángar* and ⅕th in the Ráwá *chaks*, and very often it is $\frac{2}{7}$th and $\frac{2}{9}$th. For inferior Ráwá well lands it is ⅙th, and in exceptional cases even ower. The average share of the proprietor is 33·9 per cent. in Mooltán, 34·03 per cent. in Mailsi, 35·4 per cent. in Lodhrán, 37 per cent. in Shujábád, and 41 per cent. in Sarai Sidhú, the average or the whole district being 35·6 per cent. But this gradation of ates is no test whatever of the relative value of the lands of the ifferent *tahsíls*. Sarai Sidhú heads the list, simply because by far e greatest parts of its tenant lands are *sailáb*, whilst in real value is decidedly last. On the other hand, Mooltán and Mailsi come t low, because they have very little *sailáb*. Comparing the same nds of land in the different *tahsíls*, the Mailsi rent-rates are quite

Chapter III, D.

Village Communities and Tenures.

Rent rates.

as high as elsewhere; one would naturally expect them to be lower, as the *tahsíl* is out of the way and tenants hard to get, but they are kept high because the proprietor has to bear a greater proportion of the cost of cultivation than in the other *tahsíls*. In the latter the custom is for the tenant to give the *chheras* for the Government canal, and to clear out his own *kassí* or watercourse from the main canal to his village, but in Mailsi the *kassí* is constructed and maintained by the proprietor alone, who has also to build and repair the indigo vats. If the tenant pays for the cutting of the indigo, he has the use of the vats for nothing, but if the cutting is done by the proprietor, the charge for the vats is 2 annas a day. Tenants hold rather more than half of the cultivated lands, and this half is thus sub-divided :—

I.—Held by tenants with a right of occupancy—

I. Paying in cash	...	1·2 per cent.	
II. Paying in kind	...	10·1 ,,	
			= 11·3 per cent.

II.—Held by tenants-at-will—

I. Paying in cash	...	1·1 per cent.	
II. Paying in kind	...	87·2 ,,	
			= 88·3 per cent.
Total	...	...	... 99·6 per cent.

Village officers—*Zaildárs.*

The figures in the margin give the numbers of *zaildárs* and village headmen in each *tahsíl*. There are no chief headmen or *álá lambardárs*. The village headmen succeed to their office by hereditary right, subject to the approval of the Deputy Commissioner. They are responsible for the collection of the land revenue, and are bound to assist in the prevention and detection of crime. They are remunerated by a cess of five per cent. on the land revenue.

Tahsíl.	*Zaildárs.*	Village headmen.
Mooltan ..	18	305
Shujabad ..	13	252
Lodhran ..	19	332
Mailsi ..	18	420
Sarai Sidhu ..	11	293
Total ..	79	1,651

The *zaildárs* are elected by the votes of the village headmen in the *zail*, subject to the approval of the Deputy Commissioner. In Mooltán, Shujábád, Lodhrán and Mailsi *tahsíls* they are remunerated by a payment of one per cent. deducted from the land revenue, *e.g.*, in a village assessed at Rs. 500 land revenue, Rs. 5 are paid to the *zaildár* and Rs. 495 to Government. In Sarai Sidhú the *zaildárs* are paid by an extra cess of one per cent. levied from the landowners, in addition to the land revenue. Two *zaildárs*, Sultán Hiráj in the Sarai Sidhú *tahsíl*, and Ghulám Muhammad Daultána in Mailsi, are styled police *zaildárs*, and are paid by the Police Department for their services in prevention and detection of crime. The head-quarters of each *zail*, with the number of villages and land revenue are given on pages 79 and 80. The population in this district consists of such a mixture of tribes that it cannot be stated with any approach to accuracy what is the prevailing tribe in each *zail*.

The *zaildári* system was introduced in Mooltán at the recent revision of Settlement. The *zails* were marked out as far as possible in accordance with the tribal distribution of the people, and the leading man in each selected as its *zaildár*. The *zaildárs* thus appointed are entitled to receive one per cent. of the *jamás* of the village

Chapter III, D.

Village Communities and Tenures.

Village officers—*Zaildárs.*

Number.	*Tahsil.*	*Zail.*	No. of villages.	Annual Land Revenue.
				Rs.
1	Mooltan.	Chadhar	12	9,913
2		Jhok Gámún	6	3,724
3		Kasba	1	10,000
4		Khoja	2	7,100
5		Khokarán	5	14,985
6		Balél	4	3,825
7		Shér Sháh	10	6,428
8		Kabírpur	30	12,321
9		Thattah Khaorán	16	9,140
10		Muhammadpur Ghotah ...	20	9,498
11		Bindá Sandíla	14	8,450
12		Panjkohán	19	11,262
13		Kotla Saádat	8	8,223
14		Lutfábád	13	11,712
15		Bosan	17	7,730
16		Jhok Wains	19	9,248
17		Mattítal	26	6,520
18		Zorkot	36	3,756
1	Shujabad.	Háfizwála	5	7,825
2		Paunta Khakí	9	3,231
3		Pinjání	6	4,444
4		Lasúrí	8	6,765
5		Bastí Mithú	13	14,820
6		Rukan Hattí	3	12,550
7		Wains	2	4,432
8		Drig	6	6,243
9		Khokar	13	13,129
10		Táhirpur	8	18,360
11		Shújábád	4	8,755
12		Shahpur	6	15,870
13		Paunta	6	10,217
1	Lodhran.	Havelí Násir Khán	9	5,066
2		Adamwáhán	6	5,127
3		Lál Kamál	5	2,898
4		Khánwah	9	6,648
5		Motha	5	6,474
6		Obáorah	8	6,854
7		Shjaitpur	8	13,872
8		Karmúwálí	5	10,606
9		Jalálpur	16	10,447
10		Alípur	9	7,901
11		Malikpur	10	6,380
12		Wahi Dáud Khán	15	12,530
13		Kundi	4	10,062
14		Lodhrán	4	4,250
15		Samrán	8	6,837
16		Rájahpur	12	7,805
17		Jallah	22	8,474
18		Thath Ghulwán	17	9,525
19		Wahi Salámat Rái	10	9,360
1	Mailsi.	Salderáh	47	5,787
2		Luddan	54	6,682
3		Karampur...	26	9,025
4		Mailsi	26	13,803
5		Aliwah	19	7,300
6		Fattehpur	27	7,075
7		Kikrí Kalán	45	10,261
8		Chelawahán	18	6,885

Chapter III, D.

Village Communities and Tenures.

Village officers—*Zaildàrs.*

Number.	Tahsil.	Zail.	No. of villages.	Annual Land Revenue.
				Rs.
9	MAILSI (*Concld.*)	Kádirpur ...	29	15,162
10		Kahror ...	14	17,076
11		Baháwalgarh	21	12,084
12		Jamráni wáh	9	10,200
13		Chauki Rangú Khán ...	41	10,399
14		Duniapur ...	54	3,715
15		Murádpur ...	14	6,390
16		Dúrpur ...	85	12,062
17		Pakkí Mián	5	591
18		Hájíwah ...	1	15,000
1	SARAI SIDHU.	Mamdál ...	18	9,438
		Sub-zail ...	9	1,777
2		Salárwahán	33	8,079
		Sub-zail ...	12	1,472
3		Fazil Shah...	31	8,027
4		Bágar ...	29	5,673
5		Koranga ...	63	16,752
6		Tolamba ...	29	5,132
		Sub-zail ...	4	3,566
7		Chughatta Panjuáná ...	9	2,067
8		Farídkí ...	13	3,339

included in their respective *zails*. In the Sarai Sidhú *tahsil* this one per cent. is collected as a cess in addition to the revenue; in the other *tahsils* it is deducted from the revenue before the latter is paid into the Government Treasury.

Alà lambardàrs.

At the recent revision of Settlement the question of the introduction of the *àlà lambardàrì* system was under consideration for some time, and it was eventually decided that the system should not be introduced generally, but that in lieu of it *zamìndàri inàms* should be conferred on such *lambardàrs* as were likely from their position and character to be conspicuously useful. It was at first proposed to confine these grants to villages in which there were several *lambardàrs*, but it was eventually found better to look to personal character rather than to the accident of the number of *lambardàrs* in a particular village. It has been provided that the *inàms* will take the shape of cash deductions to be made from the quota of revenue payable by the grantee; that they are bestowed on the ground of the holder's general position and character, and especially his readiness to assist Government; and that they will ordinarily be continued to the holder's successor; but if the Deputy Commissioner considers that any grant should not be so continued, he will report the case to the Financial Commissioner. It was left optional with the holders of existing grants to accept the new proposals, or to retain their old grants on the old terms, but they almost unanimously chose the new *inàms*. The number of grants is given on the top of next page.

The total of these *inàms* is only 0·26 per cent. of the *jama.*

Lambardàrs.

The total number of the ordinary *lambardàrs* is 1,651. The most conspicuous of them have been made *zaildàrs*, or received *zamìndàrì inàms*, and many of the smaller men are *lambardàrs* of villages consisting of a single well. Mr. Roe writes, "perhaps in

Chapter III, D.

Village Communities and Tenures.

Ala Lambardàr.

	No. of cases.	*Inàm* formely held.	Increase.	Total.
		Rs.	Rs.	Rs.
Mooltán—i. Modification of existing grants	3	95	11	106
ii. New grants...	11	...	250	250
Total	14	95	261	356
Shujábád—New grants	6	...	140	140
Lodhrán—New grants	11	...	240	240
Mailsi—i. Modification	6	132	36	168
ii. New grants	11	...	235	235
Total	17	132	271	403
Sarai Sidhu—i. Modification	16	273	172	445
ii. New grants	6	...	155	155
Total	22	273	327	600
Sarai Sidhu—i. Modification	26	516	219	735
ii. New grants	45	...	1,020	1,020
Total	71	516	1,239	1,755

"most villages the *lambardàri* is still valued, but in not a few it is "regarded rather as a burden. Just before the announcement of the "Lodhrán *jamas* I had some 20 cases where the *lambardàr* had "resigned, and no one would accept the post. The fact is not suffi-"ciently considered that in this district the villages are often mere "clusters of wells, and that the *lambardàr* has but little power over "his co-proprietors unless he is sure of support. If there were to be "a general resignation of *lambardàrs*, our whole administration would "break down."

Dharwàls and other servants.

Dabìrs or *dharwàls* exist in nearly all the villages, and are of the greatest use. Mr. Roe writes:—"I have made no attempt to "record their duties. They are at present truly the servants of the "*lambardàrs* and *zamìndàrs*, and there is great danger that if we "attempt to 'recognize' or 'organize' or 'utilize' them, we shall "only do mischief. For the same reason I have abstained from "interfering with the *mahràbs* and other village servants, and I "expressed myself as strongly opposed to a proposal to turn the "*mahràbs* into canal *chowkidàrs* and pay them from the *zar nàghà*."

Dharat.

Dharat was originally a weighman's fee of which the *kàrdàr* took the surplus when there was one. On annexation a proclamation was issued against it, and it was generally abolished. But it still survives in a few villages, and the *dharwàl* is still a man of importance. It is only in the Mailsi *tahsìl* that there is any thing approaching to a custom of *dharat*, and even there it is only levied in about one-third of the villages, and its amount is very trifling. Its general form, where it exists, is that of a tax on produce weighed or sold, and the proceeds are devoted—(i) to the payment of weighmen, (ii), to charitable or religious purposes.

Chapter III, D.

Village Communities and Tenures.

Kamins' dues.

When the gross produce, after deducting the fodder, is collected for division, the first payment is that of the *kamins* or village servants, who do all ordinary repairs to the agricultural implements, and assist in the harvesting and partition of the crops. The local charities and shrines also come in for their share. The names of the recipients are—

I.—Receiving a lump sum per well:—

1. *Kumhàr*, or potter.
2. *Tirkhàn*, or carpenter.
3. *Lohàr*, or blacksmith.
4. *Mochì* or currier and shoe-maker.
5. *Mehràb* (or distributor of canal water).
6. *Nài*, or barber and bard.

II.—Receiving a percentage of the produce:—

1. *Làwà*, or cutter of the crop.
2. *Gherà*, or thresher.
3. *Chhàji*, or sifter.
4. *Dabìr*, or weighman.
5. *Mohassil*, or watcher on part of the proprietor.
6. *Ràkhà*, or watcher on behalf of the cultivator.
7. *Kótwàl*, or general servant. *Màchì* or baker.
8. *Kutànà*, sweeper or *chùra*.
9. *Dhob*, or washerman.
10. *Deorà*, or camel-grazer.
11. *Mohànà*, or ferryman.
12. *Mullàn*, or village bard. *Miràsi*, or teacher.
13. *Jhandìr*, a wandering tribe of *faqìrs*.
14. *Ganèsh*, offerings to the Hindú temple.
15. *Makhdùm Rashìd*, offerings to the Muhammadan shrines.
16. Any local shrine.
17. *Rasùl arwàhi*, or fees for charms.

This is almost a complete list of the sharers in *kamins'* dues, but it must not be supposed that they all always take a share. The *kumhàr*, *tirkhàn*, *mochì*, *lohàr*, *dabìr*, *mohassil*, are found in nearly every village, and the *nài*, and the *miràsi* when he is not the same as the *nài*, *gherà*, *chàjì*, *kotwàl*, *kutànà* in most. All too pay the *rasùl arwàhi* or fees to the parish priest for charms, and the offerings to *ganesh* and *makhdùm rashìd*. Often the people watch and cut their own crops, and wash their own clothes; they thus dispense with a *làwà*, *ràkhà* and *dhobì*. The *mehràb* is found only in canal villages, the *mohànà* only in those by a ferry, and the *deorà* only where the villagers own camels. The *jhandìr faqìrs* are confined to certain localities, and the amount of contributions to local shrines is almost a matter of chance. The *kamìns*, who are paid at a lump sum per well, get a fair remuneration, but the shares of the others are very trifling. As stated above, the dues actually paid vary slightly in nearly every village or even in every well; but for the purpose of assessment, Mr. Roe estimated the general proportion which they bore to the gross produce for different classes of land. This rate was for *sailàb* lands—7·5 per cent. in Sarai Sidhú, 8 per cent. in Mooltán, and 8·5 per cent. in the three other *tahsìls*; for well lands fairly near

Chapter III, D.

Village Communitees and Tenures.

Kamins' dues.

the rivers, *i.e.*, in the *ulár* and *bángar* lands, it varied from 10 to 12 per cent., except in the Mooltán city lands, where much of the produce is sold before the *kamins* receive a share, and the rate was consequently reduced to 8 per cent.; in the more remote well lands *i.e.*, in the Ráwá *chaks*, it was fixed at from 15 to 18 per cent. For the whole district the deductions on account of *kamíns* dues were 12 per cent. on the gross produce, after allowing for fodder for cattle.

Agricultural labourers.

The subject of the employment of field labour other than that of the proprietors or tenants themselves, and the system of agricultural partnerships, are thus noticed in answers furnished by the district officer and inserted in the Famine Report of 1879 (page 718-19*ff*).

"Hired labourers are employed by all the richer *zemíndárs*, who "are above following the plough themselves, for their *khud kásht** "lands. They are employed for all farming operations, and receive "wages sometimes in kind, sometimes in money, sometimes in both, "amounting to from Rs. 3 to 5 a month. They are of all classes except "Sayads and Bráhmans; they cannot be said to form a class apart; "they are the outskirts of the tenant-at-will class. A tenant loses his "bullocks or gets into trouble, and he works as a labourer till he can "recover himself. On the other hand a *zemíndár* takes a fancy to a "labourer who has worked for him for some time, and he gives him "some lands, advances him money for bullocks, and sets him up as a "tenant. Sometimes, too, a small proprietor meets with a temporary "difficulty in the Ráwá;† in long continued drought cultivation is "impossible; the proprietor then sends his cattle to graze in the *bár*, "and goes to work as a labourer until better times return. These "labourers generally live on their wages with ease; they may run up "petty scores for food in their *bázár*, but they cannot get into serious "debt. But their condition is inferior to that of the poorer tenants, "inasmuch as it is generally when a tenant is ruined that he becomes "a day labourer; as long as a man is a tenant, he has no want of the "actual necessaries of life, nor has the labourer, as a rule, but he may "have at any time,—at least there is the possibility of this, but I have "never known it to occur particularly. The demand for labour has "always been in excess of the supply, and the agricultural labourers "work on steadily all the year round."

The wages of labour prevailing at different periods are shown in Table No. XXVII, though the figures refer to the labour market of towns rather than to that of villages.

Petty village grantees.

The last two lines of Table No. XVI show that there are in the Mooltán district only two persons holding service grants from the village. But the figures refer only to land held free of revenue, which is by no means the only form which these grants assume. Sometimes the land is leased to the grantee at a favourable rent, or on condition of payment of revenue only; sometimes the owner cultivates and pays the revenue, making over the produce to the grantee; while occasionally the grant consists of the rights of property in the land, which, subject to the usual incidents, such as responsibility for revenue and the like, vest in the person performing certain specified services at such time and for so long as he performs them. These

* Their own home farm.
† Dry lands not irrigated nor alluvial.

Chapter III, D.

Village Communities and Tenures.

grants are most commonly made to village menials and watchmen on condition of or in payment for services rendered, to attendants at temples, mosques, shrines, or village rest-houses so long as they perform the duties of the post, and for maintenance of monasteries, holy men, teachers at religious schools, and the like.

Poverty or wealth of the proprietors.

Table No. XXXII gives statistics of sales and mortgages of land; Table Nos. XXXIII and XXXIIIA show the operations of the Registration Department; and Table No. XXXIX the extent of civil litigation. But the statistics of transfers of land are exceedingly imperfect; the prices quoted are very generally fictitious; and any figures which we possess afford but little real indication of the economical position of the landholders of the district. Some statistics, unfortunately imperfect, of the area of land sold and mortgaged as ascertained at the recent Settlement, are given in the table at pages 86-87. The subject is discussed at some length at pages 322*ff* of the Famine Report of 1879, where actual figures are given for instances selected as typical. In forwarding these figures, Rái Hukum Chund, an Extra Assistant Settlement Officer of great experience and knowledge of the district, wrote as follows:—

"1. *Proprietors.*—These men are generally well, or fairly well, and some are very well off. Of the Muhammadans, 50 per cent. are in debt, but many are only temporarily so. They have to borrow to meet any emergency, but pay off the debt in two or three years. This 50 per cent. of debtors may be thus sub-divided :—

	Per cent.
i. Those who are so involved that they cannot free themselves without selling all or a part of their land...	... 10
ii. Those who are solvent, but cannot pay immediately	... 25
iii. Those who can pay immediately ...	... 15

"Debts are due to two main causes, (*a*) ostentation and profligacy, (*b*) litigation, *i.e.*, cases arising out of spite, and criminal fines. Of the Hindú proprietors only some 15 per cent. are in debt. Of these about half are petty Karár *zamíndárs*, who are probably insolvent. The others can pay without difficulty.

"*Occupancy tenants* are generally poor; some are decently off, but few make more than a living. Some 20 per cent. of them are in debt, but their debts are small, and arise chiefly from agricultural misfortunes, such as the death of bullocks, sickness, &c., or from punishment in the criminal courts. The *maurúsís* paying in cash are very few; nearly all are men whose rents were authoritatively fixed at the last Settlement, and who are practically sub-proprietors. Their profits are some 50 per cent. higher than those of the servants at-will.

"*Tenants-at-will* have to be sought for by the proprietors, and settled at their expense on the wells. They are poor, but not more them 10 per cent. are in debt, and their debts are very petty."

The Settlement Officer, Mr. Roe, after expressing his concurrence in the opinion just quoted, writes as follows:—

Indebtedness of the people.

"We find the people just what, from the historical summary already given, we should expect them to be. The great mass of them are Muhammadan Jats, the descendants of Hindú tribes, some of whom may have come from Rájputáná and Sindh, whilst others may have been in the country from long before the days of Alexander. Besides these we have groups of Afgháns, generally of superior position, who gained their lands with the Nawábs of Multán, and a considerable number of Hindú Karárs,

Chapter III, D

Village Communities and Tenures.

Muhamadan Jats.

who for the most part pushed their way or were introduced by Sáwan Mal into nearly all the villages during the Sikh rule. Amongst the Jats many of the better class are men of energy and intelligence, taking a keen interest in the improvement of their estates and managing them most successfully. But the bulk of the smaller *zamíndárs* are ignorant and careless farmers, destitute of energy, drifting along without a thought for the morrow, and not attempting to look into their accounts as long as the money-lender will give them an advance. When the day of Settlement comes at last and they find themselves hopelessly involved, they attribute their ruin, not to their own laziness and extravagance, but to the avarice of the Karár, and look to the District Officer to cancel their debts and reduce their assessments. Some excuse may be made for them in the fact that they were quite unprepared for our system of cash assessments. They had always paid the revenue in kind, and the nature of the great part of the cultivation, indigo, depending on inundation canals, giving as it does great profits in some years and entailing losses in others, rendered a fixed cash *jama* most unsuited to them. The assessments of the Regular Settlement were, however, so light that the change has not been felt as much as might have been expected. A considerable quantity of land has changed hands since Settlement, but a great part of this is due to voluntary exchanges between men of the same family or tribe, or to the more thrifty and energetic members buying up the shares of the weaker. The figures of the recent Settlement show that there has been no considerable decrease in the proportion of land held by the Muhammadan Jats since 1858. The Hindú Karárs, as a rule, are thrifty and hard working, and most of those who own land have little to do with money-lending. Most of the leading Afgháns are, like many of the leading Jats, energetic and intelligent, but they suffer from the same vice of extravagance. Men who should be walking think they must keep their horse; those who could properly afford one or two horses, think they must keep five or six; men who would be men of substance and position, if they would only look after their property themselves, think it adds to their dignity to transact all their business through a *mukhtár*, or agent. The consequence is that there is a very serious amount of indebtedness. Only the money due on regular mortgages has been recorded in the Settlement papers, and this can hardly be accepted as absolutely correct. But it is hardly likely to be over the mark, for against exaggerations intended to defeat pre-emption may be set off accidental omissions. Taking the amount of the liabilities shown in the statements as approximately correct, they cover 2·4 per cent. of the total area. At the Regular Settlement the area mortgaged was 1·7 per cent. of the whole. It is, however, probable that the increase has not really been so great as this, for at the Regular Settlement the importance of obtaining a record of the mortgage was hardly so well understood, and there were probably more omissions then than now. No attempt has been made to record the amount due on *lekhá mukhí* mortgages, but the area affected by them (counting only those which are proved or admitted) is 7·2 per cent. of the whole. Adding this to the regular mortgages, the total area pledged is 9·7 per cent. of the whole: this is a very serious amount of debt."

Karárs.

Afgháns.

In reviewing Mr. Roe's report, Colonel Wace comments upon the above remarks:—

Cause of indebtedness.

"On the whole, Mr. Roe attributes the debts of the agriculturists rather to their apathy, improvidence, and (in a few cases) recklessness, than to the necessary results of our system of fixed cash assessments. Though I do not desire to detract from the weight due to an opinion based on seven years' intimate association with the agricultural classes of the district,

Chapter III, D.

Village Communities and Tenures.

Cause of indebtedness.

I think that few of us in forming our judgment of the cases of existing agricultural indebtedness, adequately realise the changes in the economic condition of the people introduced since annexation. Within the last 33 years the people have passed rapidly from a system of direct depedence on the assistance and supervision of the ruler to one in which they are thrown entirely on their own resources. The change is forcibly described in the reply on this subject furnished to the Famine Commission by Mr. O'Brien, Settlement Officer of Muzaffargarh, which I quote below.* There can be no doubt that the continued bad farming, extravagance, and improvidence of the agricultural classes has produced the present state of indebtedness. But if we go further and ask what caused the bad farming, extravagance, and improvidence, the answer is that the people were never trained for the position in which they are placed by our Government, and were never fit for such a position. Under former Governments they were kept as regards agriculture in a state of tutelage. They were quite unaccustomed to manage for themselves. The Government *kárdárs* did everything for them, made them cultivate the land, made the Hindús lend them money and seed, and made the borrowers repay. The agriculturists were pitted against one another to cultivate. If one man did not cultivate his land, it was taken from him and given to another who would cultivate. After annexation this minute superintendence was withdrawn. The agriculturists were introduced for the first time to the name and responsibilities of proprietorship, and a system was introduced which enjoined the exact contrary. 'Don't interfere with the distribution of the assessment or the internal management of villages, the people do this much better themselves,' was the order. The agriculturists, who had for generations been accustomed to have every part of their economic details done for them by Government officials, were as helpless as a child which can hardly walk when deprived of the chair on which it leaned, and the money-lender stepped into the place which the former Governments occupied. This I believe to be the true origin of the indebtedness in this district, and the neglect of the canals did the rest. And such increase of indebtedness as has resulted from this rapid alteration of the conditions of Government seems to me to be its unavoidable outcome. It is a result very much to be regretted; but that no greater disintegration of the old agricultural society has as yet occurred, justifies the hope that their general prosperity will not further decline, especially under the increased attention which we may hope will be given in future years to the maintenance of the canals, and to the fair collection of the revenue."

Statement of land sold between the regular and revised Settlements (1858-80).

Tahsil.	Sold to co-proprietors.						Sold to non-proprietors.	
	To Karárs or Khatris.		To others.		Total.		To Karárs or Khatris.	
	Area.	Jama.	Area.	Jama.	Area.	Jama.	Area.	Jama.
Mooltán ...	5,119	1,697	5,483	2,652	11,002	4,349	6,339	2,125
Shujábád ...	7,380	6,307	4,064	4,528	11,444	10,835	2,487	1,876
Lodhrán ...	11,675	3,551	4,999	2,111	16,674	5,662	...	...
Mailsi ...	8,186	2,313	4,224	819	12,410	3,132	...	...
Sarai Sidhu ...	...	...	...	...	2,811	...	...	...
Total ...	...	...	...	...	54,341	...	...	...

* Punjab replies to the Famine Commission, pp. 499-500.

Tahsils.	Sold to non-proprietors—continued. To others. Area.	To others. Jama.	Total. Area.	Total. Jama.	Total. Area.	Total. Jama.	Percentage sold. Total area.	Percentage sold. Total jama.
Mooltan ...	6,117	2,698	12,456	4,823	23,458	9,172	7·0	8·36
Shujábád ...	1,170	952	3,657	2,828	15,101	13,663	7·7	1·2
Lodhrán ...	...	...	5,126	1,635	21,800	7,297	5·0	6·0
Mailsi ...	...	...	18,017	2,877	30,427	6,009	5·0	5·8
Sarai Sidhu ...	...	...	1,654	...	4,465	...	1·8	...
Total ...	...	...	40,910	...	95,251	...	5·3	...

Statement of mortgages, as existing at the Settlement of 1880.

Tahsils.	Regular Mortgages. Area.	Per cent. on total.	Jama.	Per cent. on total.	Total. Lekha Mukhi. Area.	Per cent. on total.	Jama.	Per cent. on total.	Total Mortgages. Area.	Per cent. on total.	Jama.	Per cent. on total.
Mooltan ..	19,781	5·0	9,587	8·2	17,866	4·5	5,929	5·0	37,647	9·5	15,516	13·2
Shujabad ..	8,491	4·5	13,672	12·0	3,950	2·1	2,937	2·6	12,441	6·6	16,609	18·6
Lodhran ..	5,045	1·1	2,213	2·[illegible]	19,598	4·5	5,706	5·0	24,641	5·6	7,919	7·0
Mailsi ..	6,707	1·0	1,887	1·7	90,629	14·7	18,358	17·0	97,336	16·0	20,245	18·7
Sarai Sidhu ..	5,348	2·3	2,029	3·5	3,263	1·4	1,137	1·0	8,611	3·7	3,166	4·4
Total ..	45,370	2·4	29,388	4·2	1,35,306	7·2	34,067	4·9	1,80,675	9·7	63,455	8·3

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

SECTION A.—AGRICULTURE, ARBORICULTURE, AND LIVE-STOCK.

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

General statistics of agriculture.

Table No. XIV gives general figures for cultivation and irrigation, and for Government waste land; while the rainfall is shown in Tables Nos. III and IIIA and B. Table No. XVII shows statistics of Government estates. Table No. XX gives the areas under the principal staples, and Table No. XXI the average yield of each. Statistics of live-stock will be found in Table No. XXII. Further statistics are given under their various headings in the subsequent paragraphs of this chapter. Land tenures, tenants, and rent, the system of agricultural partnerships, and the employment of field labour have already been noticed in Chapter III, Section D.

Operations of agriculture.

Speaking generally, the cultivation of all parts of this district is of a slovenly character, the work of a people whose heart is not given to it. The Jat tribes, who make up the mass of the rural population, still retain too much of their former wild propensities to make good agriculturists, and it is, as a rule, only where Hindú capitalists have obtained a hold upon the soil, or the cultivation is in the hands of Hindú tribes of inferior social status, that much industry or skill are bestowed upon the work of husbandry. This is the case especially in the less favoured *tahsíls* of Sarai Sidhu and Mailsi; in the former Mr. Morris states that he found "the land badly ploughed, little or "no manure used, and the seed carelessly sown, so that, notwithstanding abundant means of irrigation, the produce is by no means superior." In the latter (on the same authority) "the cultivation is generally inferior, in consequence of the idle habits of the people." The land is carelessly ploughed, and little or no pains are taken to clear and weed it; the seed is sown on a surface still rough from the plough, so that the crop grows up thin and irregular; the use of manure is neglected, and irrigation is carried on in a slovenly manner from badly-constructed wells. In the Lodhrán *tahsíls*, with the exception of the indigo villages (held by Aráíns) on the Sardárwah canal,

Operations of agriculture.

and a few villages on the Chenáb, a similar description would apply. In the Shujábád *tahsíl* generally, and in the lands attached to the city of Mooltán, cultivation is superior. In Shujábád a majority of the wells are in the hands of wealthy Hindús, who have expended much capital on the land, and appreciate the advantages to be obtained from careful husbandry. These lands are spoken of as "highly manured, extensively irrigated, and skilfully cultivated." The lands surrounding the city of Mooltán are mostly in the hands of Aráin cultivators, who are both skilful and industrious. Mr. Morris thus describes the usual agricultural course observed in the better cultivated portions of the Mooltán *tahsíl*:—"The land is generally "irrigated once or twice before ploughing, which it then undergoes "five or six times: after that the soil is levelled and made even. It is "then watered once more, and the seed sown broadcast while the land "is still moist; the field after that is marked off into beds, and then "follows regular irrigation every third or fourth day for 10 or 12 times "until the grain begins to ripen. A *bígha* of land takes from 20 to "25 seers of seed, but the *kalar* soil requires more. Rotation of crops "is recognised, but not followed very strictly. All land, however, is "obliged to lie fallow for one year out of three, and often more, unless "very highly manured."

Soils.

Several varieties of soil are recognised, which have been described at page 10. These distinctions appear to be to a certain extent familiar in all parts of the district,* though more depends upon the facilities for irrigation than upon the quality of soil; copious irrigation puts all varieties of soil practically on a level, while without artificial irrigation none is productive. The quality of the soil is, however, of practical importance as determining the amount of irrigation required. One marked feature in the soil of the whole district is its general impregnation with saltpetre. Soil in which this impregnation is excessive is known (as elsewhere) by the name of *kalar*. It is especially prevalent in the Sarai Sidhu and Mooltán *tahsíls*.

Irrigation.

In 1878 it was found that 65 per cent. of the cultivation was irrigated from canals, 14 per cent. from wells, and 21 per cent. was flooded by the river. Water for irrigation is derived (1) from the rivers, (2) from canals, (3) from wells, and (4) from *jhíls*. The nature and value of the irrigation derived by direct overflow from the river floods has already been noticed. The water of the Rávi and occasionally that of the Chenáb and Sutlej, is also directly utilized for irrigation by means of *jhalárs*, or Persian-wheels, working from the banks into reservoirs cut out below in the river bed. Such *jhalárs* are especially frequent in the long, straight reach of the Rávi below Talamba. As to the capacity of the *jhalár* for irrigation, see below.

Canal irrigation.

The canals are of two classes, the larger and the smaller. The latter, which are known by the name of *kassí* occur only on the Rávi. They are small cuts constructed by particular villages, or particular

* They are less marked in the Mailsi and Lodhrán *tahsíls* than in the country watered by the Chenáb. In Mailsi the "soil of the whole *pargana* is very much the same, a mixture of sand and alluvium. Even here, however, distinctions do exist (Morris).

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Canal irrigation.

individuals, for the irrigation of their own lands, and seldom exceed three miles in length. The irrigation from this source, when the supply of water is favourable, is of a very superior kind. The larger canals or *nálas* are of a more ambitious character, and involve a considerable outlay of labour and capital. They derive their supply from the Chenáb and Sutlej when in flood. The principal canals have been described in Chapter I. The total area irrigated by these canals may be estimated in round numbers as 363,000 acres. Irrigation is effected in two modes—by direct overflow and by means of Persian-wheel (*jhalár*). Irrigation by the former mode is styled *paggú*. The *jhalárs* are of several kinds—the *oral* or *baharbadi*—a small contrivance having a few pots only but of a large size, worked by one bullock, and used where the water is near the level of the country; the *tangan* or *utangan* used when the water is at a medium distance (the wheel of an *utangan* contains from 50 to 60 pots); the ordinary *jhalár* constructed in all respects like the apparatus of an average well; the *beghári* or double *jhalár* used where the distance from the water is very great, one wheel conveying the water to an intermediate reservoir into which the second wheel plays. A *do-charkhi jhalár* is one in which two wheels work into one reservoir. In the lands attached to every *jhalár* is a well, from which irrigation is supplied during the months when the canal is empty. In many parts, especially in the Mooltán and Shujábád *tahsíls*, the *jhalár* is used as supplementary only to the *paggú* irrigation enjoyed when the water is at its full height in the canals. In this way the sugar lands of Shujábád are kept constantly irrigated, first by direct overflow, then by lift, from the canal, and when the canal fails, by well water. Water begins to rise in the majority of the canals about April, from which time till September the supply is constant, rising to its full height in July and August. A good *jhalár* worked by a full number of oxen (4 yokes) will irrigate from 25 to 32 acres of land, an *utangan* about two-thirds of this area. For the most part the excavation for a *jhalár* is unlined (*kacha*), but is occasionally lined with brick. Mr. Morris states that the cost of a masonry *jhalár* is about Rs. 30, without the wood-work. The wheels and pots he estimates to cost Rs. 40.

Well irrigation.

In the richest parts of the district well-irrigation is resorted to merely as supplementary of irrigation by canal, and is of primary importance only in the northern and eastern *tahsíls* of Sarai Sidhu and Mailsi. Throughout the district, however, it may be broadly stated that there is no plot of cultivation in which there is not a well of some kind used for watering. They are of all kinds, from the the brick well sunk in the high lands to the unlined (*kacha*) holes dug from year to year in land which is subjected to inundation during the floods. The distance of water below the surface rapidly increases with the distance from the rivers, and the depth of the well ranges from 10 to 40 feet; but from 25 to 30 feet may be taken as about the average depth of a brick well. When it rises beyond 40 or 50 feet, cultivation becomes impossible. Further information will be found at pages 177 to 203 of Major Wace's Famine Report compiled in 1878. The following figures show the number of wells then existing in the district, with certain statistics regarding them :—

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Well irrigation.

Number of wells.	Depth to water in feet.		Cost in Rupees.	Bullocks per wheel or bucket.	Acres irrigated per wheel or bucket.	
	From	To		Number of pairs.	Spring.	Autumn.
6,239	...	20	275	4	20	5
5,529	20	30	375	5	15	10
785	30	40	500	5	10	10
624	40	60	550	6	10	5

All these wells were bricked; and all were worked by the Persian-wheel, the gear for which costs some Rs. 40. The area watered by a well is capable of indefinite increase if the well is required only in the cold season to supplement irrigation from a canal. The maximum area irrigable by a well unaided by canal water may be taken as 20 acres in Mooltán, 25 acres in Mailsi and in Sarai Sidhu, 15 acres in the uplands, and 25 in the riverain.

Agricultural implements and appliances.

Table No. XXII shows the number of cattle, carts, and ploughs in each *tahsíl* of the district as returned in 1878-79.

Manure and rotation of crops.

The following description of the use of manure and the system of rotation of crops as practised in the district, was furnished for the Famine Report of 1879 (page 259). The general custom regarding manure is this:—The *sailáb* land is not manured at all; nor is simple canal land, unless very close to the homestead. In the immediate neighbourhood of large towns, the whole area is constantly and plentifully manured. In small towns and scattered wells, the manure of the cattle is used as far as it will go. For the other lands no regular supply of manure is given. The proprietor invites herdsmen to graze their flocks on it, and allows them in return the croppings and leaves of trees. The weight of the manure in the immediate neighbourhood of Mooltán is estimated at 200 maunds an acre a year. *Unirrigated or sailáb lands.*—For the first two years after new land is thrown up by the river, it is sown with peas, or some other pulse; after that it is sown with wheat year after year. *Simple well lands.*—The main crop is the wheat; this, with enough turnips and *jawár* for the support of the cattle and the owners' family, and a little cotton for home consumption, form the whole produce. The area is generally so large that half the well is cultivated one year, and half the next. If it is not large enough for this, the *kharíf* lands of one year will be used for *rabi* crops. *Canal and well lands.*—As a rule, the area of these wells is large, and the *kharíf* crops are grown in one part by the aid of the canal, and the *rabi* on another by aid of the well, but if the canal flow late, they give the *rabi* lands one or two waterings. The *rabi* cultivation is the same as in simple wells. The *kharíf* as simple canal. *Canal alone.*—This contains the greater part of the indigo lands. Indigo remains in the ground for two years, sometimes even for three years. It is cut in September, and wheat sown for the ensuing *rabi*; for the indigo is believed to act as a manure. Repeated ploughings are only used in the highly cultivated lands.

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Principal staples.

Crop.	1880-81.	1881-82.
Kangni	573	724
China	3,181	4,029
Mattar	22,820	24,443
Mash (Urd)	2,057	2,620
Mung	454	316
Masur	2,024	4,320
Arhar	50	..
Coriander	171	171
Cillies	70	158
Other drugs and spices	36	55
Mustard	8,899	9,261
Til	9,468	9,414
Tara Mira	5,383	5,417
Hemp	5	6
Kasumbh	8	13
Other crops	39,672	1,758

Table No. XX shows the areas under the principal agricultural staples. The remaining acres under crop in 1881-82 were distributed in the manner shown in the margin. The areas under the several crops at the measurements of the recent Settlement are shown at pages 94 and 95. They may be grouped as follows :—

	Area in acres.		*Percentage of harvest.*	*Percentage of total.*
Rabi.				
Wheat and barley ...	2,52,395		73·5	47·2
Gram	14,880		4·3	2·8
Fodder—				
Peas ...	27,010			
Mehthra ...	2,676			
Masúr ...	1,145			
Turnips ...	35,885	66,716	19·4	12·5
Tobacco ...	...	1,302	·4	·2
Tárá Mírá ...	...	6,151	1·8	1·1
Other *rabi* crops ...	...	2,071	·6	·4
Total *Rabi* ...	...	343,515	100	64·5
Kharif.				
Sugar-cane ...	...	3,672	1·9	·7
Indigo ...	...	50,746	26·8	9·5
Cotton ...	...	36,095	19·2	6·7
Rice ...	...	8,827	4·6	1·1
Jawár ...	62,685			
Bájra ...	11,469	74,154	39·2	13·9
Til ...	...	9,775	5·2	1·8
Superior grains ...	...	5,473	2·9	1·1
Other crops ...	...	437	·2	·1
Total *Kharif* ...	...	189,179	100	35·5
Grand Total of both harvests ...		532,694	...	100

The nature of the agricultural produce varies much with the locality. In the *tahsíl* of Sarai Sidhu, watered by the Raví and Chenáb, wheat, barley and gram are the staples of the spring harvest; *jawár* and other pulses those of the autumn. Of the more lucrative crops, sugar-cane is entirely unknown; but indigo is grown in a few villages watered by the Mattital and Khádal canals. Cotton is also grown in sufficient quantity for home consumption; and, on the low land flooded by the rivers, a little rice is grown in favourable years. The date palm grows freely in this *tahsíl*, and the fruit is of superior quality. Further south, in the Mooltán *tahsíl*, rice and indigo form the staples of the autumn harvest. Sugar is also grown, and cotton in larger quantities than in Sarai Sidhu. Tobacco and poppy are sown in the rich and highly irrigated lands near the city of Mooltán. Wheat and barley are the staples of the spring harvest. The dates of Mooltán are still finer than those of Sarai Sidhu. The best crops of the district are those of the Shujábád *tahsíl*. Here, sugar, though not very generally cultivated, is produced in large quantity, and of

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Principal staples.

great excellence, in many of the canal villages, the produce of which is sufficient, after supplying the demand of the neighbouring districts to allow a considerable surplus for exportation down the Indus. It is grown for the most part in the tracts before described as protected by dykes from submersion by the river, where well-irrigation, copiously supplemented by canals, is available at comparatively small cost. The Hindú capitalists of this *tahsíl* have devoted especial attention to this staple. Indigo is also grown largely in this *tahsil*, the soil most suited to it being that of the tract just beyond the immediate influence of the river's action. Rice and cotton are also important staples of the autumn harvest. In the spring, wheat prevails to the exclusion of inferior grains. In the Mailsi *tahsíl* wheat, barley, gram, and mustard (*sarson*) are the staples in the spring; and indigo, cotton, *til* (sesamum), *jawár* and other pulses those of the autumn. The best wheat is grown on lands deriving irrigation from the old bed of the Biás. Tobacco is grown on land manured and irrigated by well in the neighbourhood of towns. In Lodhrán the staples are wheat in the spring, and indigo in the autumn, the latter being especially prevalent on the Sirdárwáh canal and Bhatiárí *nálá*. From the villages of the Sirdárwáh canal it is said that Sáwan Mal yearly realized 1,000 maunds of indigo. The description of the principal staples given at pages 94 to 99 is taken from Mr. Roe's Settlement Report, and deals chiefly with the question of average yield.

Wheat.

Mr. Roe thus discusses the Settlement experiments on the yield of wheat :—

"The highest yields obtained were 31 maunds in Mooltán, 27 "in Shujábád, 20 in Lodhrán, 20 in Mailsi, and 40 in Sarai Sidhú. I "rather doubt the yield of 40 maunds, but those from 20 to 30 may "be accepted without difficulty, after making allowance for the mode "of conducting official experiments. The whole of the land is irrigated "by wells, or by the overflow of the river, and in some cases it has "received at the time of sowing one or two waterings from the canal. "The average yield for the whole district, as given by the experiments, "is just under 12 maunds. For my produce-estimate I have accepted—

For *sailáb* lands	... 5 and 6 maunds	... 480	lbs.
For wells alone	... 8 and 9 ,,	... 720	,,
For wells with *sailáb*	... 9 and 10 ,,	... 800	,,
For wells with canal	... 10 to 12 ,,	... 960	,,
For *báráni*	... 4 ,,	... 320	,,

"The *báráni* is the cultivation in the hollows of the *bár*; the yield "here is in some years excellent, by far the highest in the district, "but the cultivation is more precarious. Every four or five years there "is a good crop, but in other years there is nothing, and a low average "has been taken to allow for this."

Barley.

But little barley is grown, and what there is may be looked on as simply a variety of wheat. The experiments as to yield were 60 in number extending over 42 acres. The result was nearly the same as for wheat, and the same rate was accepted for both. The popular belief is that the yield of the barley is the greater of the two, but that the grain weighs lighter, and that the total outturn in weight is thus equal.

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Principal staples.

Statement of acreage under principal crops (Settlement 1880).

Name of *tahsil*.	Wheat.						Barley.					
	Well alone.	Canal and well.	*Sailáb.*	Canal alone.	Well and *sailáb.*	Total.	Well alone.	Canal and well.	*Sailáb.*	Canal alone.	Well and *sailáb.*	Total.
Mooltán	5,907	34,578	8,663	...	...	49,148	111	648	141	...	...	900
Shujábád	3,863	20,444	5,022	1,142	...	30,471	74	495	52	15	...	636
Lodhrán	3,773	31,883	19,102	3,960	1,104	59,822	85	470	504	79	56	1,194
Mailsi	5,107	41,665	21,668	...	...	68,440	107	622	274	...	...	1,003
Sarai Sidhu	13,250	14,013	12,773	...	...	40,036	311	262	172	...	...	745
Total ...	31,900	142,583	67,228	5,102	1,104	247,917	688	2,497	1,143	94	56	4,478

Name of *tahsil*.	Gram.	Vegetable.	Poppy.	Tobacco.	*Tárá mira.*	*Peas.*	*Methra.*	*Masar.*	Turnips.	Total *rabi.*	Sugar.
Mooltán	3,182	447	4	398	811	3,855	529	209	8,656	68,210	144
Shujábád	464	180	...	113	161	3,515	168	240	4,922	40,902	3,492
Lodhrán	1,284	408	4	310	2,145	7,597	444	619	6,803	80,731	30
Mailsi	4,485	287	5	218	2,802	8.197	1,256	...	11,733	98,723	...
Sarai Sidhu	5,465	171	18	263	232	3,846	279	77	3,771	54,940	6
Total ...	14,880	1,493	31	1,302	6,151	27,010	2,676	1,145	35,885	3,43,515	3,672

Statement of acreage under principal crops (Settlement 1880).

Name of *tahsil.*	Indigo.	Cotton.				Bajra.					Jowar.		
		Canal and well or well-*sailab.*	Canal alone.	Well alone.	Total.	Well alone.	Well and *sailab.*	Canal and well.	Canal and *sailab.*	Total.	Well alone.	Canal alone.	Total.
Mooltán	12,305	10,431	665	...	11,096	...	615	2,802	1,104	4,521	735	10,100	10,855
Shujábád	15,270	6,122	341	...	6,463	...	...	...	626	626	...	...	5,937
Lodhrán	11,031	4,893	852	197	5,942	107	...	1,701	1,274	3,082	15,177	...	15,177
Mailsi	12,011	7,113	2,365	296	9,774	...	...	...	2,871	2,871	...	...	25,741
Sarai Sidhu	129	2,750	70	...	2,820	...	...	...	369	369	...	...	4,995
Total ...	50,746	31,309	4,293	493	36,095	107	615	4,503	6,244	11,469	...	...	62,685

Name of *tahsil.*	Rice.	*Til.*	*Mash.*	*Sanwak.*	*China.*	Total *kharif.*	Total both harvests.	Remarks.
Mooltán	2,548	4,523	821	319	1,276	48,762	116,972	
Shujábád	3,819	309	8	189	306	36,512	77,414	
Lodhrán	1,862	434	45	34	235	38,067	118.798	
Mailsi	404	2,944	18	139	125	54,593	153,316	
Sarai Sidhu	194	1,565	6	15	1,016	11,245	66,194	
Total ...	8,827	9.775	898	696	2,958	189,179	532,694	

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Gram.

Gram is grown almost entirely on the *sailáb* lands, but in the Mailsi *tahsíl*, if the canals continue to flow late, the lands irrigated by *paggú* are, when the *kharíf* crop has been removed and they have received one good watering, sometimes sown with gram. The crop is not only profitable, but it is also said to act as a manure and improve the land for the next *kharíf* crop. Thirty-seven experiments were made, of which 25 were under 10 and 5 under 15 maunds. The maximum yield was 28 maunds, but this was the only yield over 25 maunds, and the average was 7 maunds. The average of experiments made by *zaildárs* was 4 maunds 22 sers; the rate accepted for the produce-estimate was generally 5 maunds, but for one or two assessment circles the rate of 6 maunds was taken.

Peas.

The conditions of the cultivation of peas are much the same as of gram. The rate of yield given by the experiments was lower, but this is not the general belief, and a slightly higher rate was accepted for the produce-estimate. Nearly the whole of the peas are used as fodder for the cattle. The same remark applies to the turnips, for which no experiments were made, and for which a nominal cash value of 20 per acre was taken.

Turnips.

Tobacco.

In tobacco 12 experiments over 7 acres were made, all by officials. The maximum yield obtained was 40 maunds, and the average 8¼ maunds. But this is below the general estimate, and the rates accepted were 9, 10 and 11 maunds.

Other *rabi* crops.

No experiments were made for the other *rabi* crops, except one for poppy, and one or two in *sarsaf* and *tára míra*. Neither they nor the rates adopted called for any particular remarks. For vegetables a cash value of Rs. 20 per acre was fixed, the same as for turnips.

Kharíf crops.

The revenue-paying crops of the *kharíf* are sugarcane, indigo, cotton and *til*; the remaining crops, rice, *jowár* and *bájra*, and the inferior grains, are consumed as food for men or cattle.

Sugarcane.

Sugarcane is by far the most valuable of all the crops, but except a little grown in the suburbs of Mooltán and sold to the Commissariat for fodder for the elephants, its cultivation is confined to a few villages of the Shujábád *tahsíl*. But in these it may be called the staple product, at least as far as the revenue is concerned, for in some of them the area under sugar is 30 per cent. of the whole cultivation. The seed preserved from the previous harvest and buried during the cold weather, is planted in February or March in ground which has been specially prepared for it by constant ploughings and abundant manure. During the hot weather it receives from 5 to 10 waterings from the canal, and the young cane has to be kept free from weeds by frequent hoeing. The cutting begins in September or October, and goes on till the end of November. The cane is carried off straight to the mill (*belna*), and the juice is pressed out and made into *gur*. Mr. Walker estimates the outturn on a good well, fully cultivated by a rich Hindú, at 40 maunds an acre. This is the maximum given by the experiments, and it is also confirmed by popular report. Mr. Walker at first considered the average might be taken at 35 maunds an acre, from which one-seventh should be deducted for seed, leaving an outturn of 30 maunds per acre. From this again must be deducted the wages of the labourers employed in making the *gur*, which may be put at 2 maunds an acre, leaving 28 maunds

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Sugarcane.

divisible between landlord and tenant. But the average given by the experiments was only 22 maunds, and the popular estimate of both officials and non-officials was very much less even than this. Sugarcane is a crop peculiarly exposed to depredations: every passer-by thinks he has a right to help himself to as much as he can eat. It is also much exposed to calamities of season, and its cultivation is carried on in low ground very liable to inundation. Although, therefore, Mr. Walker's estimate of 28 maunds may be a very fair one for what would be popularly called average land, and in an average year, it was far too high to be taken as a basis of produce-estimates to be used for assessment purposes. Mr. Roe consequently allowed a further deduction of 10 maunds an acre, and accepted 18 maunds as the average yield. Even this was considered very high, both by the *zamíndárs* and the officers. All accounts agree in putting the price of *gur* at about Rs. 3 per maund; the value of gross produce per acre would therefore be Rs. 54. From this must be deducted 12 per cent. for *kamíns*, dues, leaving Rs. 48 as the divisible balance. The share taken by the proprietor when the tenant pays the expenses of cultivation is almost always one-third, so that he would receive about Rs. 16 an acre, and a full half net asset would be Rs. 8 per acre. At the last Settlement the revenue rate for sugar lands was fixed at Rs. 7 per acre, and some of the best wells actually pay this.

Indigo.

Although sugarcane is per acre the most valuable of the crops, yet indigo, from the extent to which it is grown, is the most important on the whole. It occupies 26·5 per cent. of the *kharíf* lands, and its value, Rs. 8,91,944, is 42·6 per cent. of the whole harvest. It is grown throughout the district wherever there are canals, but the quality varies much. The most famous is that of the Sardárwáh tract in Lodhrán, and the Sikanderábád tract in Shujábád, but the Mailsi indigo is also very good. The cultivation is confined to simply canal lands irrigated by flow (*paggú*), for although some of the land under indigo is shown in the Settlement returns as "canal and well," this is only because it forms part of the area belonging to the well; it never really gets any well water. The method of cultivation is described at length in appendix A, which is taken from a report by Mr. Morris that is now out of print. Except the small indigo factory in the village of Sháhpúr in the Shujábád *tahsíl*, belonging to a Mr. Robson, there are no indigo factories, and his is a small one and not constantly or fully worked. Each well where indigo is grown has its own vats, the manufacture is carried on there by the *zamíndár* and his assistants, and the dye, made up into balls, is brought by traders who come in the cold weather from Bombay and Kábul. As regards the cultivation, all the estimates agree in putting the amount of seed required at 15 or 16 sers the acre, and the general cost of cultivation at about Rs. 10 per acre. The rate of yield was estimated by Mr. Morris at 16 sers an acre, by Mr. Daniel of Kahror at 10 sers only. Mr. Robson's estimate is as high as 25 sers for a very good crop, but his average value of manufactured indigo is Rs. 25 per acre, and as he puts the average price at Rs. 60 per maund, the average yield would be a little over 16 sers an acre. During the recent Settlement 58 experiments were made, extending

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Indigo.

over 118 acres; the maximum yield obtained was 24 sers, the minimum 5 sers, and the average between 13 and 14 sers per acre. Mr. Roe took for his produce-estimates rates of 10, 11, and 12 sers, according to the different localities. These are rather low for ordinary years. But the profits of indigo cultivation are very precarious; in good years they are very large, but the crop is liable to a number of accidents. If the canals do not rise early in the season, the plants wither, and the crop is lost. On the other hand, if the supply of water is excessive, the dye is washed out of the plant, or blight sets in. On the whole Mr. Roe considered his rate "moderate but fair." The price of indigo of course varies according to its quality, which depends partly on the land on which it is grown, but chiefly on the care bestowed on its manufacture. It is generally agreed that the best is worth Rs. 60 to 80, or even Rs. 100 per maund, whilst the inferior kind is only worth from Rs. 25 to 50. The average given by the price current for the last 20 years is from 10 to 12 *chitáks* per rupee, or Rs. 53 to 64 per maund. The rate adopted for the produce-estimate was 14 *chitáks* per rupee, or Rs. 45 a maund in the inferior, and Rs. 60 per maund in the superior tracts; this was the maximum that could be taken as an average price; the prices of Rs. 80 and 100 are only given for exceptionally good indigo, and there is probably hardly a single holding in the district the whole of whose crop would fetch these prices. At Rs. 60 per maund the produce of one acre, putting this at 12 sers, would be worth Rs. 18, and at the usual rent rate of two-fifths the proprietors' share would be just over Rs. 7. This would point to Rs. 3 as a fair revenue rate per acre, for some little allowance must be made for *kamín's* dues, &c.

Cotton.

Cotton also occupies a considerable part of the *kharíf* area, and its nominal value is large. But it is grown almost entirely for home consumption, and both the rate of yield and the price must be put low. Fifty experiments were made extending over 79 acres; the maximum yield obtained was 13 maunds, the lowest 1 maund 30 sers, the average of the official experiments was 7¼ maunds, of the non-official 3½ maunds, and of the two together, 5 maunds 20 sers. By far the greater part of the cultivation is on well lands which are aided by *sailáb* or canals, but a little of it is on simple well lands, and of course all the *sailáb* and well and canal and well lands are not of the same quality. The rate of yield accepted for the produce-estimate varies from 4 maunds to 5½ maunds. The price according to the average of 20 years varies from 9 sers 12 *chitáks* to 12 sers 7 *chitáks* per rupee, or from Rs. 4 to 3 per maund. But this average is raised by the high prices which prevailed during the American war, and the rate taken was from 13 to 15 sers the rupee, or Rs. 3-1-3 to 2-10-8 per maund.

Rice.

Not much rice is grown, and what there is is very inferior. It is grown almost entirely in nearly barren waste which will grow nothing else, and the whole of it is used for food by the poorer classes. Thirty-three experiments were made over 88 acres, nearly all in the Mooltán *tahsíl*, and the greater number by non-officials; the maximum yield obtained was 20 maunds, the minimum 6 maunds, and the average 12 maunds. This was the average accepted for the produce estimate throughout. The average price current ranges from 32 sers

to 1 maund 2 sers per rupee. Mr. Roe adopted from 25 sers to 1 maund 3 sers, or from Re. 1 to Re. 0-14-6 per maund.

Til.

Til is rather a paying crop. The area under it is much the same as that under rice. The few experiments made gave an average yield of 4 maunds 17 sers per acre; Mr. Roe took 4 maunds in all the assessment circles except one, where he reduced it to 3 maunds. The average price ranges from Rs. 2 to 3 per maund. He accepted Rs. 2 per maund for the district generally, except the Shujábád *tahsíl*, where he took Rs. 3, the average of the price-current.

Jowár and *bájrá*.

The area under *jowár* and *bájrá* is very extensive, but nearly the whole of these crops are consumed in feeding the *zamíndárs* and their cattle, and but little is sent to market. Nineteen experiments were made in *bájrá* with an average of 9 maunds, and 17 in *jowár*, with an average of 6 maunds. The rate of 7 maunds was generally accepted for both, with 8 maunds for the best and 6 maunds for inferior lands. In prices *jowár* is popularly said to be 2 sers in the rupee cheaper than *bájrá*, and this proportion was generally maintained in fixing the price current, the rate accepted being generally Re. 1 a maund for *bájrá*, and 1 maund 2 sers the rupee, or Re. 0-15-3 a maund, for *jowár*.

Other crops.

By far the greater part of the other *kharíf* crops consists of the inferior grains which may almost be said to form the staple food of the poorer classes. Neither their yield nor their value calls for any remarks. The only other crop which requires special notice is *mehndi*.

Mehndi.

There are only 83 acres of this in the whole district, and its cultivation is confined to a single circle of the Mailsi *tahsíl*. But small as it is, it is very valuable;* the only experiment made gave a yield of 13 maunds 20 sers, and Mr. Roe accepted as an average a yield of 10 maunds. The average price by the price-current is 17 sers the rupee. He took as the average 20 sers or Rs. 2 per maund. These rates were undoubtedly very liberal, but even they gave the value of the gross produce at Rs. 20 per acre. Although the profits of this cultivation are great when it has once been started, the preliminary expenses are considerable.

Average yield. Production and consumption of food-grains.

Table No. XXI shows the estimated average yield in lbs. per acre of each of the principal staples as shown in the Administration Report of 1881-82, while the estimates which were used to calculate the value of the gross produce for purposes of assessment in the Settlement of 1880 have been discussed in the preceding pages under the headings of the several crops. The average consumption of food per head has already been noticed at page 42. The total consumption of food-grains by the population of the district as estimated in 1878 for the purposes of the Famine Report is shown in maunds in the margin. The figures are based upon an estimated population of 471,563 souls. On the other hand, the average consumption per head is believed to have been over-estimated. A rough estimate of the total production, exports, and

Grain.	Agriculturists.	Non-agriculturists.	Total.
Wheat ..	583,374	1,096,225	1,679,599
Inferior grains ..	596,056	602,966	1,199,022
Pulses ..	88,774	127,896	216,670
Total ..	1,268,204	1,827,087	3,095,291

* Well described at page 451 of Baden-Powell's *Punjab Products*.

Chapter IV, A.

Agriculture, Arboriculture and Live-Stock.

Average yield. Production and consumption of food-grains.

imports of food grains was also framed at the same time; and it was stated (page 152, Famine Report) that an annual surplus of some 492,000 maunds was exported, consisting of wheat with the exception of about 8,000 maunds of gram; the whole being sent down the Indus to Sindh. In 1877, owing to the scarcity in Southern India, nearly double this quantity was exported. The following figures show the total produce of the district as estimated by Mr. Roe, and its value at the rates prevailing (1) between 1853 and 1857, (2) between 1867 and 1872:—

Comparative Statement of the value of the principal crops of the Mooltán tahsíl in 1853-57 and 1867-72.

Name of crop.	Estimated gross produce.	Rate in 1853-57.			Value.	Rate in 1867-72.			Value.
	Mds.	M.	S.	C.	Rs.	M.	S.	C.	Rs.
Wheat ...	308,960	0	33	0	3,74,497	0	21	0	5,88,495
Gram ...	15,970	1	7	0	13,591	0	25	0	25,552
Sarsaf ...	206	0	30	0	275	0	18	0	458
Tárá mírá ...	4,309	0	37	0	4,658	0	25	0	6,894
Tobacco ...	4,174	0	18	0	9,276	0	15	0	11,131
Sugarcane ...	144 acres	117/-		*	16,848	134/-		*	19,296
Indigo ...	3,666	0	0	12	1,95,520	0	0	10	2,34,624
Cotton ...	51,921	0	13	0	1,59,757	0	10	0	2,07,684
Til ...	16,488	0	20	0	32,976	0	14	0	47,109
Total ...	...		...		8,07.398		...		11,41,243

* Value in rupees per acre.

Arboriculture and forests.

Table No. XVII shows the whole area of waste land which is under the management of the Forest Department. In 1881-82 the Forest Department recognised three separate forest ranges in the Mooltán district—that of Sarai Sidhú, area 52½ square miles; that of Lodhrán, area 12 square miles; and that of Mailsi, area 45 square miles. These three are "reserved" forests under Act VII of 1878. Besides these, there are 55 square miles of various "unreserved" *rakhs* in Mailsi and Lodhrán *tahsíls* under the Forest Department. The figures below give further details regarding the reserved forests as they now stand. The following note on the forests of the district has been furnished by Mr. Shakespear of the Forest Department through the Conservator of Forests:—

List of the reserved forests of the Mooltán district.

Tahsil.	Serial No.	Name of forest.	Area in acres.	*Tahsil.*	Serial No.	Name of forest.	Area in acres.
						Brought over	8,449
Sarai Sidhu ..	1	Vanohi ..	9,140	Lodhran ..	11	Khanwah ..	1,423
	2	Makhdumpur	6,644		12	Lodhran ..	1,531
	3	Akil ..	6,936		13	Jalalpur ..	1,536
	4	Burakotla ..	4,531			Total ..	7,[illegible]
	5	Pakka Haji-Majid ..	2,059	Mailsi ..	14	Sharaf	5,053
	6	Dangra ..	4,309		15	Tajwana	1,976
		Total ..	33,619		16	Chak Kora ..	1,620
Lodhran ..	7	Shujaatpur ..	1,010		17	Sahoki	20,[illegible]
	8	Obaorah ..	656			Total ..	28,770
	9	Kotwalah ..	545				
	10	Nauraja Bhuttah	1,238				
		Carried over ..	8,449			Grand Total ..	70,278

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Sarai Sidhú reserves.

"The Sarai Sidhú reserves are situated on the north of the Sindh, Panjáb and Delhi Railway, roughly within 10 miles of it, and between the 30th and 60th miles on the Lahore side of Multán. The present reserves, gazetted under Section 34 of Act VII of 1878, contain portions of the *rakhs* taken over from the district in 1869, any balance not considered worthy of special protection or required for the convenience of the people being thrown up, thus leaving only reserved forests in this *tahsíl*. Each area is most carefully demarcated by continuous lines 20 feet wide, by large masonry pillars bearing serial numbers in Urdu, and by trenches 2 feet deep at chain intervals; is also divided by 20 or 10 feet lines into compartments of 300 to 500 acres; these having a numbered post at every corner. The reserves are divided into 79 compartments, and working is very much facilitated by having them, the lines serving as village roads and inspection paths, and helping to reduce the spread of fire. Previous to being taken up by the department, portions of these reserves, with the exception of Bura Kotla, which seems to have escaped, were irregularly cut over for the Sindh, Panjáb and Delhi Railway fuel, the result being that in some places we have old trees that have been deteriorating for years, while in others even quite small ones were made away with. During the past five years steady progress has been made in cutting out only the mature stock, the Sindh, Panjáb and Delhi Railway being the largest consumers. A demand of about two lakhs cubic feet arose during 1883-84 for the new Sidhnái Canal Works on the Rávi, and was met by cutting out only trees over 2 feet girth in compartment I of Dángra reserve.

"The rates realised for fuel of *Prosopis*, *Tamarix* and *Capparis* have ranged from Rs. 2-8-0 to Rs. 3-4-0 per hundred cubic feet, royalty being taken on the material being stacked at the railway, and all expenses being borne by purchasers.

Bura-Kotla reserve.

"Bura Kotla is the most valuable forest; and four compartments, in which only trees over 2 feet girth were cut, gave an everage of 618 cubic feet an acre on a total of 1,113 acres felled in the past two years by the railway contractor. A preliminary working plan, embracing five years ending with 1884-85, was drawn up for this range by Mr. Baden Powell, late Conservator of Forests, Panjáb; but owing to the small demand, cessation of the overflow of the Rávi, a smaller rain-fall than formerly, and the extreme necessity of the people near the forests for grazing, it has not been found possible to strictly adhere to the original scheme. The demand will increase as the stock of wood in private forests becomes exhausted. Grazing on payment was allowed to certain village cattle in those compartments that could be open without risk of damage, and the income derived by a charge of Re. 1-2-0 per buffalo and 9 annas per cow or bullock for past year was on this account Rs. 1,742.

Lodhran range.

"The Lodhrán range is in the south-west corner of the district, in the *tahsíl* of the same name. Five of the reserves are in a group within a few miles of the junction of the Chenáb and Sutlej rivers, and close to the municipal town of Jalálpur, and from 20 to 24 miles from the Indus Valley State Railway; while the two others, called Khánwáh and Lodhrán, are much nearer. All the forests are out of department *rakh* and held since 1869, and were reserved in March and June 1881, under Section 19 of the Forest Act. The boundaries in this range are defined by shallow trenches at intervals, by a continuous cleared line 20 feet wide, and by numbered posts at the angles and some intermediate points.

"The group near Jalálpur has not been cut, and holds a fine stock of wood ready for the axe; the two other isolated areas were felled by selection of only the maturest trees in 1878-79 by the Indus Valley State

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Lodhrán range.

Railway contractor, the royalty realised being Re. 1-5 per hundred cubic feet, and the yield about 150 cubic feet per acre.

"There has not been any strong demand for wood from Government forests, private lands having met the demand so far; and the sales of the *Tamarix* and *Salvadora* at three annas a cubic foot, and of *Capparis* at Rs. 6-4-0 per hundred cubic feet, have not been extensive. The grazing is very valuable, because there are no other Government waste lands near, and the private areas of bordering villages are insufficient. The grazing in the Jalálpur group was leased to *lambardárs* in 1883-84 for Rs. 1,060.

"The Khánwah and Lodhrán forests were kept closed. The income is usually supplemented by fees for *saccharum* grass, and for rights of fishing in a back-water of the Chenáb known as the Vihári *nallah*.

Mailsi range.

"The Mailsi reserves are in the extreme south-east corner of the Mailsi *tahsíl*, adjoining the Montgomery district, with the Satlaj a few miles on the south. They were finally gazetted under Section 19 of the Forest Act in February 1881. They were formed chiefly of the best parts of *rakhs* administered by the department since 1869, with additions from waste land under the Deputy Commissioner's control. Boundaries are defined by a continuous line 20 feet wide, and by numbered posts. The growth generally is very light; but a fair yield might be got out of the depressions known as the 'Sukh Biás.' This holds in places a fair stock of mature trees fit for removal. Hitherto the demand for wood has been next to nothing. An almost nominal offer was made a few years ago by the Indus Valley State Railway. Some day these forests may become the source of supply for this railway, but not till the private forests in Baháwalpur territories and in the Mailsi and Lodhran *tahsíls* shall be exhausted. Even then the distance of carriage by land or by water will be an obstacle. The Sindh, Panjáb and Delhi Railway is much nearer, but the intervening country a desert, and a readier supply is open to them from the forest at Sarai Sidhu.

"Small fees are occasionally credited for *Tamarix* and *Salvadora* at three annas a cubic foot, and for *Capparis* at Rs. 6-4-0 per hundred. Grazing is valuable, and was leased over all the areas (except Chakkaora, Rs. 10,791, for 10 months, April 1883 to January 1884), the fees levied being at 12 annas a buffalo and 6 annas a cow or bullock per annum. The sales of *saccharum* grass add a small amount to the income.

Trees throughout district.

"The trees, shrubs, and bushes found throughout the three ranges are *Prosopis spicigera* (*jand*), *Tamarix orientalis* (*farásh*, *ukhán*), *Salvadora olæides* (*jhal*), *Capparis aphylla* (*karíl*), and *Salsolæ* (*lána*, *khár*) on the higher ground, with *Tamarix gallica* (*lai*) and *Zizyphus nummularia* (*kokan ber*) in the lower. The leaves of the last are much esteemed as cattle-fodder, and the *Salsolæ* as fodder for camels. Among the many

Grasses.

species of fodder grass may be noted the vernacular names of *chimber*, *lunák*, *garm*, *dab*, *kilanj*, *kheo*, *dila*, with *saccharum cylindricum*; this being also sought after for the manufacture of string from the *munj* or upper part of the stalk, and also for *jaffri* work and ceiling, matting from the *kána* or lower portion, and for thatching, &c., from the *sar* or leaves.

Rights.

"It has been determined at Settlement and by Forest Settlement Officers appointed under the Forest Act, that the only rights in any reserve are limited to a few necessary rights of way. There were in all this large extent of forest only a few plots of land held, at the time of reservation, in proprietary right; and many of these have since been acquired by the department, either by payment of money compensation or by exchange of areas. The grazing of camels, goats and sheep is strictly prohibited in all reserved areas, and even cattle are only admitted in limited numbers to such portions as may be open.

Establishment.

"The permanent protective establishment for the district consists of three foresters on Rs. 20 to 30 a month, aided by a staff of forest guards distributed according to the general requirements of the whole Forest Division, which extends over Multán and three other districts. The staff of guards usually numbers twenty-four to thirty men on Rs. 5 to 10 per mensem.

Unreserved *rakhs*.

In addition to the reserves, the Forest Department still administers *rakh* land, the extent of which is in Lodhráu 27, and in Mailsi 28, square miles, comprising several isolated areas, mostly of small extent. The growth is generally very poor, with occasional exceptions. Some of these areas have been irregularly cut over since coming under the department in 1869. With the exception noted further on, all are open to unrestricted grazing, the income therefrom being fixed and credited by the Deputy Commissioner to the department accounts in the district Treasury. The amount of grazing fees thus credited on account of both ranges in the year 1883-84 was Rs. 1,225. The second item of importance, also credited by the Deputy Commissioner, is for the annually sold right to manufacture *sajji*, impure carbonate of soda, from the *lána* or *khár* plant (the best species of "*salsolæa*) now only found in *rakh* Goián (Mailsi) in sufficient quantities to make it worth selling. The disposal of this right fetched Rs. 258 in 1883-84. The *sajji* was transported on camels to the Sindh Panjáb and Delhi Railway, and thence sent to Lahore, Amritsar and Multán. Besides the above-mentioned sources of revenue, these *rakhs* bring in very small sums for *saccharum* grass, and for *Salvadora* and *Capparis* trees for beams and rafters.

"The local Forester inspects these *rakhs*, and a few forest guards are in immediate charge. The only area in which grazing is restricted is *rakh* Goián; into this camels are not admitted, as they would eat down the *lána* plant, and the sale of it for *sajji* would be seriously affected.

Live-stock.

Table No. XXII shows the live-stock of the district as returned at various periods in the Administration Report. The cattle of the district are of the ordinary Panjáb breed. For purposes of carriage, camels are principally used, carts being practically unknown among the agricultural classes. A bullock or cow costs from Rs. 15 to Rs. 80, a buffalo from Rs. 30 to 80, and a camel from Rs. 35 to Rs. 100. The prices, however, which have risen greatly since annexation, vary much in different years and in different parts of the district.

Horse-breeding.

Government assists horse and mule-breeding by supplying horse and donkey stallions gratis for service of mares which have been passed as suitable for brood purposes by the Assistant Superintendent Horse-breeding Operations. There are at preseent 1,173 passed mares in the district. There are twenty horse stallions in the district of the following breeds :—Thorough-bred English 4 ; Arabs 3 ; Norfolk Trotters 13. These are stationed as follows throughout the district :—

Mooltán ...	... 7	Mailsi ...	... 1
Khokhar ...	... 1	Mitru ...	... 1
Shujábád ...	... 2	Luddan ...	... 1
Lodhrán ...	... 2	Sarai Sidhú...	... 1
Jalálpur ...	... 1	Talamba ...	... 1
Kahror ...	... 1	Salarwahan ...	... 1

There are 8 donkey stallions of the following breeds :—Italian 2, Arab 6, which are thus distributed :—

Mooltán ...	... 2	Kahror ...	... 1
Shujábád ...	... 1	Mailsi ...	... 1
Lodhrán ...	... 1	Sarai Sidhú...	... 1
Jalálpur ...	... 1		

Chapter IV, A.

Agriculture, Arboriculture, and Live-Stock.

Horse-breeding.

The Government system of horse-breeding has been in operation since 1877. Breeders are beginning to rear their young stock on good principles. Several have made horse runs or paddocks, and take a thorough interest in their horses. There has been a *salútri* employed by the Department of Horse-breeding Operations since 1879. During 1883 the District Committee, which had sent five pupils to be trained in the Veterinary College at Lahore, appointed four passed Veterinary Assistants. The number of colts that have been gelt in the last three years is as follows :—

	No. of colts.
1881	31
1882	72
1883	76

A horse fair is held at Mooltán in March. It was instituted in 1879, and the following table shows details for the last five years :—

Year.	Number exhibited.	Number sold.	Prize awarded.
			Rs.
1879 ...	556	24	825
1880 ...	957	59	1,500
1881 ...	440	24	2,000
1882 ...	648	18	2,000
1883 ...	771	33	2,000

Fodder.

The general mode of feeding the cattle is this: in the winter months (15th November to 1st February) of Poh, Magar and ½ Phagan they are fed on turnips; in February, ½ Phagan and ½ Chet on green wheat; in ½ Chet and ⅓ Waisák (from 1st to 25th March) on *methra* and peas; in the remainder of Waisák and all Jhet (from 15th March to 15th May) on *bhúsá* and *khal* (oil-cake); in the hot weather, *viz.*, Hár, Sáwan, Bhádon, Asúh and Kátak (15th May to 15th October) on *jowár*; and in Maghar (15th October to 15th November) again on *bhúsá* and *khal*. The produce necessary to provide this food is expended or set aside before the proprietor and tenant divide their shares, and the following deductions from the gross produce have been made on this account. The following paragraph shows the proportion of each crop which Mr. Roe, the Settlement Officer, excluded from his produce-estimates as being used for fodder, which is not assessed to land-revenue.

Turnips.—The nominal allowance is 1 *bígah* per yoke in wells near the rivers, and 1½ *bígahs* in those farther inland; but practically the tenant is allowed to grow as much as he likes for the *boná fide* use of his cattle, for it is the proprietor's interest that they should be in good condition. Unless they are at enmity and the proprietor wishes to annoy the tenant, he never demands any share of the turnips except when they are sold, which is only the case near large towns. The deductions made have been either the whole crop or ⅘ths of it. *Wheat.*—Only in the *chaks*, away from the river, is it the custom to give green wheat to the cattle, and in these an allowance of 5 per cent. has been made. In *sailáb* lands no deductions have been allowed. *Peas and Masúr.*—In some parts peas are grown for human food and sale; in others they are entirely consumed by the cattle; whilst in others they are used partly for one purpose and partly for the other.

Chapter IV, B.

Occupations, Industries and Commerce.

Fodder.

In Shujábád and Lodhrán no deductions have been allowed;* in Mailsi 1 *bígah* per yoke has been allowed in the river *chaks*, and the whole of the crop in the other *chaks*; in Mooltán and Sarai Sidhú the allowance has been ⅛ths throughout. *Ráwán, Methrá, Senjni.*—Throughout the district the whole of these crops are simply used for fodder, and they have been deducted accordingly. *Jowár.*—In Sarai Sidhú the nominal allowance is 1 *kanál* per well, or about 5 or 6 per cent. of the whole; in the other *tahsíls* it is 1 *bígah* per yoke. But, as in the case of wheat, as long as the proprietor and tenant are on good terms, this limit is never regarded, and the tenant gives his cattle as much as he likes. But the deductions have been made at the nominal rates. *Chína.*—In Mooltán and Sarai Sidhú an allowance of 5 per cent. has been made on this crop, but no deductions have been granted in the other *tahsíls*. The value of the total deductions allowed for the whole district, amounts to 16 per cent. of the estimated value of the gross produce.

SECTION B.—OCCUPATIONS, INDUSTRIES AND COMMERCE.

Occupations of the people.

Table No. XXIII shows the principal occupations followed by males of over 15 years of age as returned at the census of 1881. But the figures are perhaps the least satisfactory of all the census statistics, for reasons explained in the Census Report; and they must be taken subject to limitations which are given in some detail in Part II, Chapter VIII of the same Report. The figures in Table No. XXIII refer only to the population of 15 years of age and over. The figures in the margin show the distribution of the whole population into agricultural and non-agricultural, calculated on the assumption that the number of women and children dependent upon each male of over 15 years of age is the same whatever his occupation.

Population.	Towns.	Villages.
Agricultural ...	5,381	213,559
Non-agricultural	82,702	250,322
Total ...	88,083	463,881

These figures, however, include as agricultural only such part of the population as are agriculturists pure and simple; and exclude not only the considerable number who combine agriculture with other occupations, but also the much larger number who depend in great measure for their livelihood upon the yield of agricultural operations. More detailed figures for the occupations of both males and females will be found at pages 133 to 142 of Table No. XIIA and in Table No. XIIB of the Census Report of 1881. The figures for female occupations, however, are exceedingly incomplete.

Principal industries and manufactures.

Table No. XXIV gives statistics of the manufactures of the district as they stood in 1881-82, and Table No. XLVA gives similar figures for the manufactures of the Municipality of Mooltán. The silk manufacture is confined to the city of Mooltán, where also fine cotton fabrics and pottery are produced. Coarse cotton cloth is

* Note.—Because here the proprietor always takes his share of this crop, either by carrying off a portion of it for his own cattle, or by demanding his share of the price, if it is sold.

Chapter IV, B.

Occupations, Industries and Commerce.

Principal industries and manufactures.

woven for home consumption in every village. The manufacture of indigo is noticed at page 97. Mr. Lockwood Kipling, Principal of the Lahore School of Art, has kindly furnished the following note on some of the special industries of the district:—

The industries for which the town of Mooltán is noted are glazed pottery, vitreous enamel, ornaments in silver, cotton and woollen carpets, silk fabrics, mixed textures of cotton and silk, and cotton-printing in colour, which last was formerly more extensively practised than now.

Glazed pottery.

The glazed faience is a relic of the time when mosques and tombs were covered with this beautiful material. There are many such buildings at Mooltán and Muzaffargarh, as elsewhere in the province. Until a comparatively recent period, the work was exclusively architectural, and consisted of tiles painted in dark and light blue with large geometrical patterns for wall surfaces, finials for the tops of domes, the Mahomedan profession of faith painted in bold Arabic characters for tombs, and panels of various sizes for lintels, door jambs and the like. There is here no ornamentation of earthen vessels for domestic use (except perhaps of the *hookah* and *chillum*) as at Pesháwar. The European demand has developed a trade in flower-pots, large plateaux for decorative purposes, and many varieties of the comprehensive word vase. The work differs technically from the pottery of Sindh, which had the same origin; in that its decoration consists solely in painting in two or three colours on the glaze or enamel, the use of coloured or white "slips," which gives a raised appearance to the patterns on Sindh ware, being unknown or at least not practised. The colours used are a dark blue from cobalt, and a very fine turqoise from copper. A manganese violet and a green, with other colours, have been recently tried, but with no great success. The "biscuit" and "glost" firing are done at one operation, *i. e.*, the article is made in clay, sun-dried, covered with glaze, and painted at once. The green glaze is said to require that preliminary burning of the clay, which is invariably given in European practice. The demand for this ware is greater than the supply, and it is to be regretted that more enterprise and intelligence are not brought to bear on a craft which has to begin with first-rate materials and good traditions. Architectural objects are still better understood, and more satisfactorily treated, than are the vases and other wares made for the European mantel-piece. No more suitable material for internal wall-decoration could be devised, but little use has been made of it for this purpose. A tomb by one of the potters now practising at Mooltan, and copied from an original in the neighbourhood, occupies a place of honour in the National Ceramic Museum at Sevres.

Enamel.

The enamel on silver of Mooltán probably owes its preservation to the continued use of vitrified colour in the local pottery. The dark and light blues of the tiles are as identical in their nature with, as they are similar in appearance to, the colouring of a Mooltán brooch or necklace. Black, red and yellow, the difficulties of the potter all the world over, are easier to manage in the small scale on which the silversmith works. But they are not nearly so good in Mooltán enamel as the blues. In larger objects, such as

Chapter IV, B.

Occupations, Industries and Commerce.

Enamel.

cups, and some forms of bracelets, the work might be described as *champlevé* enamel. The ground on which the colour is laid is graven out precisely as in Europe, but in the case of the studs, solitaires, brooches and other objects which form the staple of the trade, a more expeditious and mechanical plan is adopted. The threadlike lines of silver which bound the pattern are engraven on a steel or bronze die or *thappa* into which the silver is beaten. The result is a meagre and mechanical raised line within which the enamel is laid. Copper is added to the silver to the extent of nearly half its weight to enable it, so the workmen say, the better to resist the heat of the fire. The ordinary price varies from Re. 1 to Rs. 2 per *tola*; to which, for enamel in two colours, 4 annas per rupee is added for workmanship. When three or four colours are introduced, a rupee per *tolá* is added. The reason for the enhanced price is the additional firing requisite to bring up reds and yellows to the proper tone. There is no contrivance at all resembling the muffle kiln used by enamellers in Europe and elsewhere, and the work is practically roasted in an open charcoal fire, protected by shards or by a wire cage. Rough as this process may appear, and deficient in design as much of the Mooltán enamel-work is when compared with the best of which India is capable, it is undeniable that it is growing in popularity, and that it compares very favourably with the Algerian, Parisian, and Syrian articles of the same class which are extensively sold in Paris. There are several good workmen who can be trusted to produce excellent work at a fair price. The prices of the articles rise very rapidly with their size; as the difficulty of evenly firing a piece six inches in height is very much greater than in the case of buttons, studs, &c. The Mooltánis, unlike the Cashmeerees, have a notion that enamel cannot well be applied to any other metal than their modified silver; and have no inclination to work on brass or copper, cheaper materials which might doubtless be largely brought into use. The largest objects to which enamel is applied in the district are the *mokabbas* or covered dishes that come from Baháwalpur, where the practice is similar to that of Mooltán, excepting that in addition to the opaque enamels, a semi-translucent sea-green and dark blue are applied, while the silver is frequently heavily gilded. These are both points of superiority. Mr. B. H. Baden-Powell in his Hand-book of Punjab Manufactures quotes a local legend "that the first maker was one Nantu, who worked 400 years ago, "and that since then the art so increased in excellence, that Mooltán "enamelled ware was highly esteemed and exported to other districts."

Woollen carpets.

Mooltán is probably the only town in the province which can claim woollen carpet-weaving as an independent, if not absolutely indigenous manufacture. It seems likely that rugs and carpets brought over from Turkestan in the course of its large and long-established Pawindáh trade may have served as the original inspiration. The patterns have a decidedly Tartar air. They are excessively bold and yet not clear in detail. The unusual size of the stitch, together with a peculiar brightness in the white, and their rather violent red and yellow, give them a somewhat aggressive and quite distinctive quality of colour. The cost ranges from one rupee per yard upwards; and, though looser in texture than good

Chapter IV, B.
—
Occupations Industries and Commerce.

jail carpets, they are durable and serviceable. The larger sizes are always, to European eyes, disproportionately long for their width, a peculiarity noticeable in all carpets that come from countries like Persia and Turkestan, where wood for roofing timber is small, and apartments in consequence are long and narrow.

Cotton-pile carpets.

The cotton rugs and carpets are sometimes parti-coloured like the woollen ones, but the typical Mooltán cotton carpet is an exceedingly strong and substantial fabric coloured entirely in a bright blueish white and blue. There would seem indeed to be a sort of unity in the local treatment of pottery, enamels and rugs. They are sometimes made in large sizes, but always, unless specially ordered, long in proportion to their width. The colouring is vivid but not unpleasant in effect, and the texture, notwithstanding its large stitch, is substantial and serviceable. The Mooltán carpets on the whole are very respectable productions, and although the original *motif* of the pattern has been merged by dint of many repetitions in vague masses of colour, its fabric remains stout and good; forming in this respect a strong contrast with the Mirzapore rug, another survival, which has not only lost its pattern, but become flimsy and loose in workmanship.

Silk.

The traveller Vigne, quoted by Mr. Baden-Powell in his Hand-book, wrote—"Seven hundred maunds of raw silk are brought to "Mooltán every year by the Lohánís,* chiefly from Bokhara and "Turkistan: these are manufactured in one hundred and fifty "workshops. One man will finish an ordinary *khes* or silk scarf in six "days, perhaps three yards long and a foot-and-a-half wide, taking "eight days previously for the arrangement of the weaving apparatus. "A very handsome *khes* is finished in sixteen days. That of the red "colour is most valuable; it is dyed with cochineal, which is brought "from either Bombay or Bokhárá; that from Bombay is a rupee a "ser,—about a shilling a pound." The trade still continues, and Mooltán silk-weaving is probably the best in the province. At Amritsar and Delhi there is a more varied use of the staple, and at Lahore there is perhaps more variety in the European style of pattern, but the Mooltán *daryai*, plain self-coloured silk, the *dhúpchhán* or shot silk, and the *khes*, a sort of checked, damasked fabric, are better finished and more agreeably coloured. All Indian silks are deficient in lustre to European eyes, but those of Mooltán are decidedly less "cottony" in appearance than others. These fabrics are chiefly worn by native ladies, and are therefore little known to Europeans. The combination of cotton with silk to make the latter lawful for Muhammadan wear (*musuffa*, pure), has given the name of *Sífi* to a mixture of a cotton warp with a silk weft, which is very well made at Mooltán. *Shujá Khání* is another name for these mingled goods, for which Baháwalpúr is perhaps better known than Mooltán, where, however, they can be produced in equal perfection. Gold thread is frequently worked into the variegated stripes for these cloths, and it is also wrought into the borders and ends of the *lungís*, turbans, *khes* and *iklάís*. One of the best features of this manufacture is the great durability and wearing power of the fabric. The fashions of the *zanánah* do not change, and

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* The Pawindah merchants described in the Dera Ismail Khan Gazetteer.—Ed.

Chapter IV, B.

Occupations, Industries and Commerce.

their inmates are keen and accomplished critics, who would quickly detect the presence of jute or any other adulteration.

Calico-printing.

Cotton-printing, though it is well done at Mooltán, can scarcely be called a flourishing industry, for the brighter and cheaper wares of Manchester have here as elsewhere seriously depressed a once extensive trade. The staple article of to-day is the *abrá*, a piece of cotton cloth usually 8 feet long and 5 feet wide, printed with a broad border all round, and a centre field of a different colour. It is used for the *razái* or cotton-stuffed quilt which forms at once a cloak and bed-cover during the cold months. Large floor-cloths elaboratedy printed were formerly more extensively made than now, in response to the Hindú preference for cotton. A Rája or Sardár will often cover a rich woollen carpet with a cotton print. This is said to be the invariable practice at the Cashmere court. Besides the *jázam* or floor-cloth, the *divár-gír*, "wall veil," or continuous lengths of print about 3 feet 6 inches wide for wall lining, and a variety of *rúmáls*, handkerchiefs, and *dopattás*, scarves, were formerly much more largely made than now. It is noticeable too, in examining a cotton-printer's graven blocks, that but few have the appearance of being newly cut. If there is a peculiarity in the Mooltán prints, it is an almost lake-like depth in the red derived from madder, which contrasts strongly with the brick-red in inferior work from other places. The greens, light blues and light yellows are not fast colours. Good cotton prints are made at Talamba, which indeed is often spoken of as the best place for these fabrics.

Ivory bangles.

In addition to the handicrafts of common life practised at Mooltán, as in every Indian town of its size, is a peculiarly local one of turned ivory *chúrís* or bangles. These are merely large rings, sometimes coloured red, and in no way artistic, interesting, or commercially important. The price of ivory is everywhere rising so rapidly that this use of the material, to which it is not particularly applicable, must shortly cease.*

Course and nature of trade.

There are no statistics available for the general trade of the district, though the total value of the imports and exports of the municipality of Mooltán for the last years will be found in Chapter VI, and Table No. XXV gives particulars of the river traffic that passes through the district. The principal local centres of commerce, after Mooltán itself, are Shujábád, Kahror, and Sarai Sidhu. A description of the trade of Mooltán town is given fully in Chapter VI. The importance of the town of Mooltán so much exceeds that of other towns as a centre of commerce, that the account of its trade will convey a sufficiently clear idea of the commerce of the district generally. There are also *bázárs* at which a certain amount of business is done at Talamba, Lodhrán, Jalálpur, and other places. Through these channels the whole surplus produce of the district finds its way to the

* The different tribes of the Aroras, who form so considerable a proportion of the population of the south-western Punjab, are distinguished by the different colours of the ivory bangles which their women wear. These bangles are probably made chiefly for the use of Aroras; and it is doubtful whether the inapplicability of the material will have much effect upon the tribal custom which directs their use. At the same time, if the price of ivory should become prohibitory, it will be curious to note what material is substituted for it.—Ed.

Chapter IV, C.

Prices, Weights and Measures, and Communications.

markets of Mooltán. The principal articles of this trade are sugar and indigo from the Shujábád and Lodhrán *tahsíls*, and wool and *ghi* from the pastures of the *bár*. The exports and imports of food-grains have already been noticed at pages 99-100.

SECTION C.—PRICES, WEIGHTS AND MEASURES, AND COMMUNICATIONS.

Prices, wages, rent-rates, interest.

The village prices of the chief agricultural staples used for the conversion of produce-estimates into money at the Settlement of 1880 are shown at page 111, together with the averages of past years collected at that Settlement. Table No. XXVI gives the retail *bázár* prices of commodities for the last twenty years. The wages of labour are shown in Table No. XXVII, and rent-rates in Table No. XXI but both sets of figures are probably of doubtful value.

Mr. Roe discusses the prices given at page 111 as follows :—

"The prices are taken from the *baniáh's* books, and are what have been fixed each Sáwan by the committee of *baniáhs* for the transactions of the previous year. They are considerably lower than the ordinary *bázár* prices, but then the *zamíndárs* who bring their produce direct to the *bázár* are few indeed. Almost all give whatever they have for sale to the *baniáh*, and leave the price to be settled by the committee in Sáwan. But it will be seen that in the prices accepted for my produce-estimate, I have gone even below the *baniáh's* averages, and in the reviews of my assessment report my prices have generally been considered (in the case of grain crops) somewhat too low. They may be so, and in comparison with the prices which have prevailed for the last two or three years, they are undoubtedly very low. But these years have been, it is to be hoped, exceptional; we have had famines succeeded by wars, and how far the wheat trade with England will prove permanent is at present a matter of speculation, and depends on America. Putting aside these considerations, and regarding the prices accepted merely with reference to the averages of the statements, I don't think they are unduly low. For in his transactions with the *baniáh* the *zamíndár* does not get even the price nominally fixed in Sáwan; he is exposed to clippings and cuttings on all sides. For advances to pay the land revenue, even when his crop has been harvested, he has to pay an anna in the rupee as *chilkáná* in addition to the regular interest, and for the weight of the produce delivered he has to trust the *baniáh* entirely. I think it may safely be said that my rates of yield and price-current together represent a cash value for an acre of land which is seldom actually received by the smaller *zamíndárs*, that is, by the great majority."

Price of land.

The figures of Table No. XXXII give the average values of land in rupees per acre shown in the margin for sale and mortgage; but the quality of land varies so enormously and the value returned is so often fictitious, that but little reliance can be placed upon the figures.

Period.	Sale.	Mortgage.
1868-69 to 1873-74 ..	12-13	9-2
1874-75 to 1877-78 ..	20-4	12-10
1878-79 to 1881-82 ..	14-8	12-12

Chapter IV, C.

Prices, Weights and Measures, and Communications.

Price of staples.

Average prices-current of food-grains, Mooltán district.

Crop.	Five-yearly period.				Period of 20 years, A.D. 1853-72		
	A.D. 1853-57.	A.D. 1858-62.	A.D. 1863-67.	A.D. 1868-72.	Average.	Accepted. From	Accepted. To
	M. S. C.	M. S. C.	M. S. C.	M. S. C.	M. S. C.	M. S. C.	M. S. C.
Wheat ..	0 36 0	0 27 12	0 19 1	0 22 1	0 25 14	0 31 0	0 37 0
Barley ..	1 17 3	0 38 8	0 27 15	0 30 9	0 37 13	1 0 0	1 6 0
Gram ..	1 4 12	0 31 6	0 23 13	0 24 5	0 30 11	0 34 0	1 0 0
Poppy ..	9 28 8	9 16 5	13 4 10	14 31 4			
Tobacco ..	0 15 14	0 13 11	0 11 7	6 11 8	0 12 15	0 13 0	0 17 0
Sarsaf ..	0 31 4	0 23 1	0 18 7	0 17 13	0 22 11	0 25 0	0 26 0
Tara Mira ..	1 6 11	0 33 4	0 26 15	0 23 4	0 32 7	1 0 0	1 10 0
Peas ..	1 25 3	1 3 15	0 30 6	0 35 6	1 3 13	1 0 0	1 10 0
Methra ..	0 37 6	0 31 5	0 22 5	0 27 7	0 30 11	0 32 0	0 35 0
Rawan ..	1 1 6	0 26 8	0 29 8	0 23 9	0 27 13	6 20 0	0 32 0
Mosar ..	1 5 12	0 33 10	0 25 7	0 28 15	0 32 8	0 33 0	1 10 0
Samokha ..	1 6 0						
Dhania ..	0 16 2	0 13 11	0 12 3	0 11 15	0 11 12	0 16 0	0 20 0
Sugar ..	0 17 3	0 11 0	0 10 2	0 11 7	0 12 10		0 13 0
Indigo ..	0 0 13½	0 0 10½	0 0 9⅖	0 0 10	0 0 11	0 0 10⅔	0 0 13
Mahudi ..	0 23 0	0 17 0	0 17 0	0 12 0	0 17 0	0 20 0	
Cotton ..	0 13 13	0 10 11	0 9 13	0 10 3	0 11 0	0 13 0	0 15 0
Jowar ..	1 7 0	0 33 13	0 22 3	0 27 12	0 32 3	1 0 0	1 6 0
Bajra ..	1 0 1	0 28 14	0 19 4	0 25 6	0 28 9	1 0 0	1 3 0
Rice ..	1 10 13	0 30 7	0 27 8	0 35 12	0 32 12	0 25 0	1 3 0
Til ..	0 21 8	0 15 7	0 12 14	0 12 4	0 16 0	0 16 0	0 20 0
Mash ..	0 30 11	0 19 15	0 15 11	0 18 13	0 21 0	0 25 0	0 29 0
Kangni ..	1 12 3	0 39 11	0 27 8	0 31 11	0 37 0	0 32 0	1 5 0
China ..	1 8 13	0 36 6	0 27 0	0 31 0	0 26 8	0 30 0	1 5 0
Moth ..	1 4 10	0 26 10	0 21 14	0 25 14	0 30 0		
Mung ..	0 31 10	0 28 0	0 16 13	0 20 2	0 23 0	0 28 0	0 31 0
Sawank ..	1 2 7	0 34 4	0 28 2	0 31 8	0 32 8	0 32 0	1 5 0

Measure of area.

The unit of linear measurement is the *karam* = 5½ feet, and 10 *karams* usually make a *jarib* or chain. The square measure used is the *bigah*, with its sub-divisions the *kanál* and *marla*. The tables of these local measures are as follows :—

Linear measure.

3 háths make 1 karam = a full space, or 2 steps, or 5½ feet.
3 karams = 1 kán.

Square measure.

1 square karam = 1 sirsáhí.
9 sirsáhís = 1 square kán or marla.
20 marlás = 1 kanál.
4 kanáls = 1 bígah.
2 bígahs = 1 acre.

Measures of weight and capacity.

In Mooltán *tahsíl* the following local measures of capacity are in force:—

4 tholás make one paropí.
4 paropís „ „ topa.
4 topás „ „ pái.

20 páis make one bora.
2 borás „ „ kharwár.
2 kharwárs „ „ máni.

The weight of a *thola* varies from two to three *chhitánks*. The weight of a *topa* was tried in the following kinds of grain, with the following result :—

		S.	Ch.
One topa full of barley contained		1	8½
„	gram „	1	14½
„	bájra „	1	14½
„	jowár „	1	14
„	wheat „	1	12½
„	ussún (tárá míra)	1	14

		S.	Ch.
One topa full of sarson contained		1	8½
„	til „	1	6½
„	Indian corn	1	14
„	*chíná* „	1	10
„	*rawán lobiá*	1	14½

Rice is said to be sold by weight only.

In Shujábád, for the most part, the usual Indian weights are used; but in the south of the *tahsíl*, among those villages which were recently

Chapter IV, C.

Prices, Weights and Measures, and Communications.

Measures of weight and capacity.

transferred from the Lodhrán *tahsíl*, the following measures of capacity are in use :—

4 páns make one thola.	4 páis make one chauth.
4 tholás „ „ paropi.	4 chauths „ „ bora.
4 paropís „ „ topa.	4 borás „ „ path.
4 topás „ „ pái.	

The weight of a *topa* in this part varies from 4 to 5 seers.

In the western part of the Lodhrán *tahsíl*, the following measures of capacity are in use :—

4 páns make one thola.	4 páis make one chauth.
4 tholás „ „ paropi.	8 páis „ „ toka.
4 paropís „ „ topa.	12½ páis „ „ bora.
2 topás „ „ dari.	4 borás „ „ máni.
2 darís „ „ pái.	

A *máni* is equal to about sixteen maunds.

In the eastern part of the Lodhran *tahsíl*, the following measures of capacity are in use :—

2 tholás make one toá.	2 darís make one topa.
2 toás „ „ paropi.	8 páis „ „ toka.
2 paropís „ „ panki.	12½ páis „ „ bora.
2 pankís „ „ topa.	4 borás „ „ máni.
2 topas „ „ dari.	

A *máni* is equal to 12 maunds 20 seers. The size of the *topa* varies very much, *e. g.*, in the west it contains 3 *seers* 2 *chhitánks*, in the east, 2½ seers, and in four villages in the western part a *topa* contains 5 seers of wheat.

In Mailsi *tahsíl* four systems of measures of capacity are in use in the following four topographical divisions:—

In south-west part of the *tahsíl*, from Mailsi to Kahror, along the bank of the Sutlej between the old Biás and the Sutlej. This part is known as the Doábá. The following are the measures of capacity:—

4 tholás make one paropi.	10 páis make one toka.
4 paropís „ „ topa.	12½ páis „ „ bora.
4 topás „ „ pái.	4 borás or 5 tokás make one máni.
6¼ páis „ „ pand.	

In this part the *topa* contains 2½ seers.

In the central part of the tract along the bank of the Satlej, containing Luddan and the Hájíwáh canal, *i. e. talúka* Luddan:—

4 tholás make one paropi.	12½ páis make one pand.
4 paropís „ „ topa.	2 pands „ „ chhati.
4 topás „ „ pái.	2 chhatis „ „ máni.

Here a *topa* contains 2 *seers* 14 *chhitánks* of wheat.

In the eastern part of the *tahsíl*, along the bank of the Sutlej, *i. e.*, in the *talukás* of Saldera, and Sáhuka the table of measures of capacity is the same as in *taluka* Luddan, but the *topa* contains 3¼ seers of wheat.

In the inland western part of the *tahsíl*, *talúka* Mitru, the following are in use :—

4 tholás make one paropi.	6¼ páis make one topa.
4 paropís „ „ topa.	12½ páis „ „ bora.
4 topás „ „ pái.	4 borás or 8 tokás make one máni.

Here a *topa* contains 4 *seers* 6 *chhitánks* of wheat.

In the western part of the Sarai Sidhú *tahsíl*, from the Chenáb to the centre of the *tahsíl*, the following are in use :—

4 paropís make one topa.	40 páis make one kharwár.
4 topás „ „ pái.	

Chapter IV, C.

Prices, Weights and Measures, and Communications.

Measures of weight and capacity.

A *topa* contains 1 *seer* 1¼ *chhitánks*. In the eastern part of the *tahsíl*, the following is the scale:—

4 tholás make one paropi.	4 páis make one man.
4 paropis " " topa.	2½ mans " " gandhri.
4 topás " " pái.	40 páis " " kharwár.

A *topa* contains 2½ seers.

These are the measures in use in the rural parts for dealings between agriculturists and merchants wherever there is a mart; and in dealings between members of the mercantile classes the usual Indian weights are used.

Communications.

The figures in the margin show the communications of the district as returned in quinquennial Table No. I of the Administration Report for 1878-79; Table No. XLVI shows the distances from place to place as authoritatively fixed for the purpose of calculating travelling allowances; while Table No. XIX shows the area taken up by Government for communication in the district.

Communications.	Miles.
Navigable rivers	245
Railways	118
Metalled roads	51
Unmetalled roads	1,131

The external communications of the district are extremely good. The Sindh, Panjáb and Delhi Railway traverses the district from west to east, opening to it the markets of the Panjáb and Northern India. The Indus Valley State Railway conveys the surplus produce to Baháwalpúr, Karáchi and the sea, whilst the river line of the Chenáb and Indus, to which this railway runs parallel, forms an alternative route most useful for the conveyance of heavy goods when speed is not required. The internal communications are good in a way; roads are numerous and fairly good; the only metalled ones are those in the station of Mooltán and the one from Mooltán to Sher Sháh, but the unmetalled roads are wide and in fair order. The main roads are the old road from Mooltán to Lahore, which runs almost parallel to the railway; the road from Mooltán to Lodhrán and Baháwalpúr, which crosses the *bár* almost in a straight line, and thus lies somewhat to the east of the Indus Valley State Railway; and the old Customs-road coming from Pákpattan and the Montgomery district, and traversing the Mailsi and Lodhrán *tahsíls* parallel to the Sutlej. There is another good road which leaves the Lahore road at Talamba, and runs round two sides of the district, keeping at a little distance from the river, and passing through Sarai Sidhú, Mooltán and Shujábád, and finally crossing the Sutlej into Baháwalpúr near the junction of that river with the Chenáb. Besides these main roads there are cross roads from Mooltán to Luddan and Mailsi and to Kahror, *viâ* Dunyapur, besides two branches from the Lahore road which pass through the Sarai Sidhú *tahsíl* into the Jhang district. The road from Talamba to the railway station at Channú and thence across the *bár* to Pakhi Mián and Luddan is a mere track. The village roads are not very good, and in the canal tracts they are useless during the hot weather, owing to the want of bridges. Nearly the whole of the carrying is done by camels, bullocks, ponies and donkeys, wheel traffic being almost unknown.

Navigable rivers.

The Mooltán district is bounded on the south and south-east by the united Sutlej and Biás, here known as either the Ghára or Sutlej. It is navigable for country craft throughout the whole of its length in

Chapter IV, C.
Prices, Weights and Measures, and Communications.
Navigable rivers.

this district and for steamers of light draught. There are 33 ferries on the Satlej, at each of which are one or more country boats. The Indus Valley and Kandahár State Railway crosses the Satlej by the Empress Bridge at Adamwáhan. The Chenáb forms the western boundary of the Mooltán district. This river here contains the united waters of the Rávi and Jhelam, and is sometimes known as the Trináb. It is navigable throughout the whole of its length in this district by country boats and by steamers of light draught. There are eight ferries on the Chenáb furnished with country boats, and at one ferry—Sher Sháh—which is also the terminus of the Sindh, Panjáb and Delhi Railway, there is a steam ferry. The Rávi forms part of the northern boundary of the district, and partly intersects the district in its northern part. It is navigable by country craft during the summer months. There are 12 ferries furnished with country boats on the Rávi. The Rávi is fordable in the cold weather, and sometimes becomes quite dry. None of the rivers are bridged. Table No. XXV shows the principal river traffic of the district as stated in the Famine Report (1879).

The following is a list of the ferries on each river within the district :—

Rivers.	Stations.	Distance in miles.	Rivers.	Stations.	Distance in miles.
Chenáb...	Múliánwálá ...	...	Satlej—(contd.)	Got Shah Muhamad...	2
	Tragránwálá ...	5		Mír Muhamadwálá ...	1
	Alipur ...	2		Mangwánewálá ...	1
	Ghatoi ...	3		Chanewálá ...	4
	Chuhepur Arewálá ...	3		Moránwála ...	2
	Pipli ...	9		Gudpur ...	2
	Rájghát ...	4		Laiwáhan ...	6
	Hamándpur ...	3		Bindrewálá ...	2
	Sher Shah (a) ...	8		Sirahatta ...	2
	Bulewáhan (a) ...	8		Samasatta ...	2
	Khángarh (a) ...	6		Náhránwálá ...	2
	Dhundhu (a) ...	5		Bandwálá ...	2
	Gangiánwálá (a) ...	9		Mukhwárá ...	1
	Sháhpur (a) ...	10		Aliwáhan ...	1
	Madwálá (a) ...	10		Aimnáwálá ...	3
Satlej ...	Sahuka ...	...		Pailádpur ...	7
	Lakha Saldera ...	6		Kot Imámdín ...	5
	Mehru Baloch ...	8	Rávi ...	Nakreri ...	...
	Fatteh Shah ...	9		Nasratpur ...	6
	Sharraf ...	7		Saupálánwala ...	4
	Káliá Sháh ...	5		Tulambha ...	3
	Murádpur ...	4		Ghauspur ...	3
	Núrpur ...	3		Baghdád ...	3
	Azimpur ...	3		Buchanwálá ...	5
	Nekokárá ...	3		Rám Chautra ...	3
	Fattehpur ...	10		Saraí Sidhú ...	3
	Khurrampur ...	4		Shakruwálá ...	3
	Durpur ...	2		Batiánwálá ...	8
	Derah Lálá ...	5		Núr Miráli ...	3
	Tibi, Lál Sohárá ...	3		Fazil Shah ...	3
	Golánwála ...	3			

(a) These seven ferries belong to the Muzaffargarh district.

Chapter IV, C

Prices, Weights and Measures, and Communications.

Railway.

The Sindh, Panjáb and Delhi Railway enters the district in the north-west, and passing the following stations :—

	Miles.		Miles.
Chanmú ...	4	Mooltán City ...	12
Kacha Khú ...	14	Mooltán Cantonments ...	1
Khanewála ...	13	Muzaffarábád Junction ...	7
Rashida ...	11	Sher Sháh ...	3
Tatipur ...	7		

has its terminus at Rámúwála, a temporary station on the left bank of the Chenáb, two miles beyond Sher Sháh.

The Indus Valley and Kandhár State Railway starts from Mooltán Cantonments, and makes use of the Sindh, Panjáb and Delhi Railway line as far as Muzaffarábád Junction. Thence it runs south through the following stations :—

	Miles.		Miles.
Buch ...	6	Lodhrán ...	14
Shujábád ...	12	Adamwahan ...	7
Gelewálá ...	15		

and leaves the district by the Empress Bridge over the Sutlej at Adamwahan.

Telegraph lines run along the whole length of the railway, with telegraph offices at each station.

Roads and accomodation for travellers.

Starting from Mooltán, where there is a dák bungalow, there is one metalled road which runs parallel with the railway to Sher Sháh, where there is a dák bungalow, *sarái* and encamping-ground, and ends at the Sher Sháh ferry on the left bank of the Chenáb. Its length is 12 miles. All the other roads in the district are unmetalled. The following is a list with accommodation on each :—

1.—*Mooltán to Jhang* viâ—

Mattital	15 miles	... Encamping-ground.
Narál	12 ,,	... Bungalow and encamping-ground.
Fázil Sháh	10 ,,	... Encamping-ground.

2.—*Mooltán to Lahore* viâ—

Qádirpur Rán	12 miles	... Encamping-ground.
Kabírwála	12 ,,	... Police bungalow, *sarái*, encamping-ground.
Makhdúmpur	12 ,,	... Bungalow, encamping-ground.
Talamba	12 ,,	... Bungalow, *sarái*, encamping-ground.

3.—*Branch road from Kabírwála to Jhang* viâ—

Sarai Sidhú	14 miles	... Bungalow, encamping-ground and dispensary.
Kuranga	5 ,,	Encamping-ground.

4.—*Mooltán to Mailsi* viâ—

Makhdúm Rashíd	16 miles	... Bungalow and encamping-ground.
Tibba	14 ,,	... Do. do.
Mitru	10 ,,	... Travellers' room in police station, encamping-ground.
Mailsi	15 ,,	... Encamping ground, dispensary.

5.—*Branch road from Mitrú to Luddan* viâ—

Karampur	12 miles	... Bungalow, encamping-ground.
Luddan	13 ,,	... Travellers' room in police station, encamping-ground.

6.—*Mooltán to Kahror* viâ—

Farídkot	15 miles	... Bungalow, encamping-ground.
Dunyapur	15 ,,	... Do. do.
Kahror	16 ,,	... Bungalow, *sarái*, encamping-ground, dispensary.

Chapter IV, C.

Prices, Weights and Measures, and Communications.

Roads and accomodation for travellers.

7.—*Mooltán to Baháwalpur* viâ—

Larh	12 miles	... Bungalow, encamping-ground.
Basti Malúk	10 ,,	... Do. do.
Aliwála	12 ,,	... Encamping-gound.
Lodhrán	12 ,,	... Canal bungalow, travellers' room in police station, *sarai*, encamping-ground, dispensary.
Adamwhan	5 ,,	... Encamping-ground.

8.—*Mooltán to Sakhar old road* viâ—

Adhi Bágh	12 miles	... Encamping-ground.
Shujábád	11 ,,	... Canal bungalow, encamping-ground, dispensary.
Gaven	13 ,,	... Bungalow, encamping-ground.
Jalálpur	14 ,,	... Do. do.

The chief cross country roads are :—

1.—*Road from Junction of Chenáb and Sutlej running parallel with the Sutlej to border of the Montgomery district* viâ—

Jalálpur	10 miles	... Bungalow, encamping-ground.
Kuraishiwála	13 ,,	... Do. do.
Lodhrán	11 ,,	... Canal bungalow, travellers' room in police station, *sarái*, dispensary.
Kahror	18 ,,	... Bungalow, *sarai*, encamping ground, dispensary.
Kikri	13 ,,	... Bungalow.
Mailsi	7 ,,	... Encamping-ground, dispensary.
Karampur	13 ,,	... Bungalow, encamping-ground.
Luddan	13 ,,	... Travellers' room in police station, encamping-ground.
Sáhúka	13 ,,	... Encamping ground.

2.—*Luddan to Channú Railway Station* viâ—

Pakhi Mián	19 miles	... Bungalow, encamping-ground.
Channú railway station	20 ,,	... Bungalow, *sarái*, *parão*.

Besides these there are cross-country roads from Mitrú to Khanewála Railway Station, 28 miles ; Pakhi Mián to Tibba Dunyapur, Basti Malúk, Shujábád and the Dholanwála ferry for Muzaffargarh and Dera Ghází Khán ; Talamba to Sarai Sidhú and Fázil Sháh.

Besides the accommodation mentioned above, there are numerous canal bungalows scattered about the district, but they were built to facilitate inspections of the canals by the departmental officers, and except where named above, they do not assist communication. Thus at every ten or twelve miles on the main roads, and on many of the smaller ones, there are encamping-grounds and rest-houses, but the grounds are mere plots of barren waste, and the rest-houses for Europeans are generally very poor. There is a good bungalow at Sarai Sidhú, and fair ones at Makhdúmpúr and Kalbírwála on the Lahore road, at the three encamping-grounds on the road to Baháwalpur, and at the Channú railway station. But at the other places the accommodation is very poor ; and at Mailsi and Lodhrán there can hardly be said to be any at all. It would of course be extremely difficult to provide suitable accommodation in a district like this. There are no non-official European travellers, and to provide convenient houses along the many lines of roads, merely on the chance of an European officer coming there once in the hot weather, would be a great burden on the local funds. Still it is undoubtedly a pity that the want of this accommodation renders it almost impossible to move about the district for nearly half the year.

Chapter IV, C.

Prices, Weights and Measures, and Communications.

Telegraph.

Mooltán is a station on the main Government telegraph line between Lahore and Karáchi. A branch line connects Mooltán with Dera Ghází Khán. There are Government Telegraph stations at Mooltán and Sher Sháh. The Telegraph offices of the Sindh, Panjáb and Delhi Railway are also open to the public.

Postal Lines and Post Offices.

The imperial postal lines are those connecting Mooltán with Lahore, the Deraját, and Sindh. The Lahore mails are conveyed by rail, the Derajat mails are conveyed from Mooltán by runners; the Sindh mails are conveyed by rail *viá* Baháwalpur. Minor lines supported by local funds connect Mooltán with the *tahsíl* and *thána* towns.

There are imperial post offices at—

Mooltán City.	Basti Malúk.
Mooltán Cantonments.	Mailsi.
Shújábád.	Luddan.
Kahror.	Mitru.
Jalálpur.	Pakhi Mián.
Lodhrán.	Sarai Sidhú.
Adamwhan.	Kabírwála.
Bahádurpur.	Talamba.

Each has a Money Order Office; and all, except Bahádurpur, Basti Malúk and Pakhi Mián, have Savings Banks.

Chapter V, A.

General Administration.

Executive and Judicial.

Criminal, police and gaols.

CHAPTER V.

ADMINISTRATION & FINANCE.

SECTION A.—GENERAL.

The Mooltán district is under the control of the Commissioner of the Mooltán Division, who is stationed at Mooltán. The ordinary head-quarters staff of the district consists of a Deputy Commissioner, a Judicial Assistant Commissioner, an Assistant Commissioner, and two Extra Assistant Commissioners. Each *tahsîl* is in charge of a *tahsîldàr* assisted by a *nàib tahsìldàr*. The village revenue staff is shown in the margin. There are two *munsifs*, both of whom hold their courts at Mooltán; the jurisdiction of each extends over the whole district. The statistics of civil and revenue litigation for the last five years are given in Table No. XXXIX.

Tahsil.		*Qanungos* and *naibs.*	*Girdawars* or *Munsarim Qanungos.*	*Patwaris* and assistants.
Mooltan	..	2	1	63
Shujabad	..	2	1	52
Lodhran	..	2	1	59
Mailsi	..	2	1	50
Sarai Sidhu	..	2	1	30
Total	..	10	5	254
Sadr Office	..	1	1	..
Total	..	11	6	254

The executive staff of the district is supplemented by a Cantonment Magistrate in cantonments. There is also a bench of Honorary Magistrates in the city who sit daily, and dispose of small theft cases and breaches of Municipal Bye-Laws, &c.

The police force is controlled by a District Superintendent and one or two Assistants. The strength of the force on 1st June 1883 was as follows:—

Class of Police.		Total strength.	Standing guards.	Protection and detection.
District	...	646	164	482
Municipal	...	233	...	233
Cantonments	...	38	4	34
Total	...	917	168	749

There are in the district, beside the above, 604 village *chaukidàrs* who are paid Rs. 3 per mensem. Their pay is levied by a cess on the village. They are paid twice a year.

The following are the first class *thànahs*:—

1. Shújábád.
2. Jalálpur.
3. Lodhrán.
4. Kahror.
5. Mailsi.
6. Mitrú.
7. Luddan.
8. Talamba.
9. Sarai Sidhú.
10. Kabírwála.
11. Nawábpur.

Chapter V, A.

General Administration.

Criminal, police and gaols.

At head-quarters there are three first class *thánahs*—

1. Mooltán city station.	3. Mooltán *sadr* station.
2. " cantonment station.	

There are two 2nd class *thánahs*—

1. Pakhi Mián.	2. Basti Malúk.

There is a cattle-pound at each *thána*, and also at at Koreshiwála, Dunyapur, Soru. The district lies within the Lahore Police Circle under the control of the Deputy Inspector-General Police, Lahore.

There are two jails in Mooltán—the District and the Central Jail. The latter has only been recently established on the completion of the Sirhind Canal, and the consequent dismantlement of the jail at Rupar. The District Jail is built to contain 770 male and 34 female prisoners. The Central Jail, which is a temporary structure, has barrack accommodation for 1,600 prisoners. Proposals have gone up to Government for a permanent Central Jail, estimated to cost about 12 lakhs. Prisoners are received in the District Jail from Muzaffargarh, there being only a very small jail in that district. Table No. XL gives statistics of criminal trials, Table No. XLI of police inquiries, and Table No. XLII of convicts in jail for the last five years.

There are no tribes proclaimed under the Criminal Tribes Act. The principal crimes are burglary and cattle theft. The latter used to be freely indulged in. Every Mooltáni was a born cattle-lifter, and even their headmen did not disdain to go off on a marauding expedition into neighbouring districts, and are still inclined to sympathize with those engaged in the business, to the extent of assisting in the disposal of the cattle brought in. The people themselves say that, as a rule, they find out where their cattle have gone, and they take the first favourable opportunity to get back their own, and possibly some of the better animals belonging to the original thief.

Revenue, taxation and registration.

The gross revenue collections of the district for the last 14 years, so far as they are made by the Financial Commissioner, are shown in Table No. XXVIII, while Tables Nos. XXIX, XXXV, XXXIV and XXXIII give further details for Land Revenue, Excise, License-tax and Stamps respectively. Table No. XXXIIIA shows the number and situation of Registration Offices. The central distilleries for the manufacture of country liquor are situated at Mooltán and Shújábád. The cultivation of the poppy is not forbidden in this district; but not much of it is grown. Table No. XXXVI gives the income and expenditure from local funds which are controlled by a committee consisting of 52 non-official members selected by the Deputy Commissioner from among the leading men of the various *tahsíls*, and of the following *ex-officio* members:—the Assistant and Extra Assistant Commissioners, the *tahsíldárs*, the Inspector of Schools; Mooltán Circle, the Executive Engineers Provincial Works and Lower Sutlej and Chenáb Canals, the Civil Surgeon, and the Deputy Commissioner as President. Table No. XLV gives statistics for municipal taxation, while the municipalities themselves are noticed in Chapter VI. The income from provincial properties for the last five years is shown on the next page.

Chapter V, A.

General Administration.

Revenue, taxation and registration.

Source of income.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.
	Rs.	Rs.	Rs.	Rs.	Rs.
Ferries with boat bridges ...	...	...	...	...	...
,, without ,, ...	23,397	22,261	17,425	17,844	19,389
Staging-bungalows ...	2,065	2,426	1,841	2,048	1,598
Encamping-grounds and *sarāis* ...	315	326	259	354	323
Cattle-pounds ...	5,537	6,062	4,390	4,248	4,140
Nazúl properties ...	2,683	4,550	4,321	2,051	1,643

The ferries, bungalows and encamping-grounds have been noticed at pages 114-116, and the cattle-pounds at page 119. The principal *nazúl* properties consist of gardens near the city of Mooltán, and plots of waste land and houses in and around Mooltán and the other towns. Most of them became Government property by succession from the Sikh Government. Figures for other Government estates are given in Table No. XVII, and they and their proceeds are noticed in the succeeding section of this Chapter, in which the land revenue administration of the district is treated of.

Statistics of land revenue.

Source of revenue.	1880-81.	1881-82.
	Rs.	Rs.
Surplus warrants *talabanah* ..	1,048	709
Malikana or proprietary dues ..	187	177
Fisheries ...	258	..
Dyes ..	180	247
Revenue fines and forfeitures ..	316	110
Fees ..	2,784	..
Other items of miscellaneous land revenue	532	8,374

Table No. XXIX gives figures for the principal items and the totals of land revenue collections since 1868-69. The remaining items for 1880-81 and 1881-82 are shown in the margin.

Table No. XXXI gives details of balances, remissions and agricultural advances for the last fourteen years. Table No. XXX shows the amount of assigned land revenue; while Table No. XIV gives the areas upon which the present land revenue of the district is assessed. Further details as to the basis, incidence and working of the current Settlement will be found below in Section B of this Chapter. The Settlement now current is sanctioned for a term of 20 years from 1878-79. The incidence of the fixed demand per acre as it stood in 1878-79 was Rs. 0-10-11 on cultivated, Rs. 0-3-2 on culturable, and Rs. 0-2-4 on total area. The statistics given in the following tables throw some light upon the working of the Settlement:—Table No. XXXI.—Balances, remissions and *takávi* advances. Table No. XXXII.—Sales and mortgages of land. Tables Nos. XXXIII and XXXIIIA.—Registration.

Education.

Table No. XXXVII gives figures for the Government and aided, high, middle and primary schools in the district. The high school is at Mooltán. The middle schools are at Mooltán city, where there are two schools, one under Government management, and the other connected with the Church Mission Society; one at Mooltán cantonments managed by the Cantonment Committee; one at Shújábád maintained by the Church Mission Society; one at Sarai Sidhú and one at Kahror, both under Government management. There is a European and Eurasian school near the railway station at Mooltán, maintained by private subscriptions and a grant-in-aid from Government. The following note has been supplied by the Rev. T. Bomford

Chapter V, A.

General Administration.

Education.

Church Mission Society, regarding female education as prosecuted by the Mooltán Mission :—

"There are at the present time four girls' schools—two in "Mooltán and two at Shújábád; the total number of girls is about 75. "The number of *zanánas* visited is 81, and the average of those who "read in them is 100. These are maintained by a grant-in-aid of "Rs. 25 per mensem from Government and private subscriptions." With the exception of the Musalmán girls, who are taught in mosques to repeat the Qorán, this is the only public instruction for females in this district.

Besides the above there is a school at Mooltán for the training of *patwárís*. In addition to the schools above mentioned, there are 569 indigenous or private schools which may be classified as follows:—394 schools where the repetition of the Qorán is taught, 1,876 pupils; 122 schools where Persian as well as repetition of the Qorán is taught, 990 pupils; 18 Sanskrit schools, 157 pupils; 13 Arabic schools, 168 pupils; 10 Commercial or Mahájni schools, 605 pupils; 7 Gurmukhi schools, 53 pupils; 5 Persian schools, 18 pupils.

The commercial schools are interesting from the high standard of mental arithmetic that is taught. Boys of 10 and 11 years of age may there be heard repeating the multiplication table to twenty-eight times. Multiplication of fractions is also taught mentally as well as practice. The number of these commercial schools is probably understated. The education of boys in commercial arithmetic goes on in every village where there is a collection of the shop-keeping classes. The teacher sits in his shop. On the same side of the street, but on the ground, sits a boy who calls out the problem and its answer, and on the other side of the street, with their backs against the shop on the other site, sit a row of boys. The teacher gives the sign. The boy on his side of the street calls out seven times twenty-eight, one hundred and ninety-six, and so on. Then all the line of boys opposite repeat it, and so on through the multiplication table to an almost indefinite length.

The district lies within the Mooltán circle, which forms the charge of the Inspector of Schools, whose office is at Mooltán. Table No. XIII gives statistics of education collected at the Census of 1881, and the general state of education has been described at page 49.

District School.

This school was first opened in 1856, in a building near the Hussain gate; but in 1861 the present school-house was erected opposite to the Haram gate. The object of the institution is the education of the people in English and in vernacular. The District school consists of a high and middle department in a block of buildings on one side of the road, the upper division of the primary department in a separate block on the other side of the road, and the lower divisions of the primary department in four separate buildings, two of which are without and two within the city walls, *viz.*, 1, main; 2, Lahári gate; 3, city central; and 4, Delhi gate, branches. All these are parts of the whole district school, and are under the management of the same Head Master. The total teaching staff consists of 8 English, 1 Drawing, 1 Arithmetic, 1 Sanskrit, 1 Arabic, 1 Writing, and 19 Vernacular teachers.

Chapter V, A.

General Administration.

District School.

The expenditure, number of pupils, and results of examinations for the last five years, are shown in the accompanying table:—

Year.	Expenditure.	No. of boys	*Pass results of examination.*		
			Middle School.	Calcutta Entrance.	Panjáb Entrance.
1878-79 ...	7,607	451	11	...	...
1879-80 ...	8,795	518	8	...	...
1880-81 ...	9,874	607	1	...	3
1881-82 ...	10,031	609	6	5	...
1882-83 ...	10,550	592	13	1	2

Medical.

Table No. XXXVIII gives separate figures for the last five years for each of the dispensaries of the district which are under the control of the Civil Surgeon. There is a civil hospital and dispensary at Mooltán in the charge of an Assistant Surgeon, and five dispensaries in different parts of the district in charge of Hospital Assistants. There is also a first class Lock-Hospital at Mooltán, which was opened in 1868.

The existence of the Mooltán civil hospital dates from before 1854. From the time of its establishment until 1860, it would appear that the duties were carried on by an apothecary, and during the subsequent three years, by a locally trained native doctor. Since 1863 the institution has been in the charge of a Sub-Assistant Surgeon under the supervision of the Civil Surgeon of the district. The buildings are situated outside the city wall in the suburbs of the town of Mooltán at no great distance from the Bohir gate, and consist of five blocks; one contains ten separate quarters for male patients, a large ward also for males, four small rooms for servants, and an office room. On the west side of this block is a large dispensing room. The second block is used as a ward for females, as well as for male patients having female relations attending on them, and contains 14 rooms. The third block consists of a bungalow which is used as a ward for poor Europeans and Eurasians. The fourth block was originally intended for the reception of insane patients, but is now used as a godown. The fifth block is occupied by the Assistant Surgeon as a dwelling house. The establishment, which is under the general control of the Civil Surgeon, consists of 1 Assistant Surgeon, 2 compounders, 2 dressers, and menials.

Ecclesiastical.

There are a Protestant Church and a Roman Catholic Chapel in Mooltán Cantonments, and a Protestant and a Roman Catholic Chaplain. There is also a Protestant Church in the civil lines at Mooltán. There is a branch of the Church Missionary Society established at Mooltán. There are at present two missionaries at Mooltán.

Troops and cantonments.

Mooltán Cantonment lies 613 miles from Kurrachee and 202 from Lahore, and has a junction with the Indus Valley State Railway at Muzaffarabad, 7 miles distant. Its civil population is composed of Hindus and Musalmáns in about equal numbers.

Mooltán is commanded by a Brigadier General, and the cantonment consists of one Battery of Royal Artillery, one European

Troops and cantonments.

Infantry Regiment, or Native Cavalry and Infantry Regiments. Fort Mooltán, 2¾ miles from cantonments, contains an ammunition depôt, and has a garrison of one company British and Native Infantry. It commands the city. Each Regiment (except the Battery) has half transport in regimental charge in connection with the new Transport Scheme. Defences of Mooltán are at present under the consideration of the Defence Committee. "B" Company of the 3rd Sindh, Panjáb and Delhi Railway Volunteers have their head-quarters at Mooltán. They number about 60 all ranks, and are chiefly railway employés.

Head-quarters of other departments.

The portion of the Indus Valley State Railway which runs through the district is in the charge of the District Traffic Superintendent, Mooltán. The District Traffic Manager, Mooltán, controls that part of the Sindh, Panjáb and Delhi Railway which runs up to Lahore; the head offices of the former railway are at Sakhar and of the latter at Lahore. The canals in this district are under the charge of the Executive Engineer, Lower Sutlej and Chenáb Division, stationed at Mooltán. His Assistant has his office at Kahror. The Superintending Engineer of Canals, Deraját Circle, has his head-quarters at Mooltán. The Executive Engineer Provincial Works Division, who is in charge of the road from Mooltán to Dera Ghází Khán, and of the civil buildings of the Mooltán Division, has his office at Mooltán. He is subordinate to the Superintending Engineer 1st or Ráwalpindi Circle. The military buildings are in charge of an officer of the Royal Engineers under the Ferozepore Division of military works, whose office is at Mooltán. The telegraph lines and offices are controlled by the Telegraph Superintendent at Lahore, and post offices by Superintendent of Post Offices at Mooltán. The Forest officer in charge of the Mooltán Division has his head-quarters at Mooltán. The Executive Engineer of the Northern Section Indus Valley State Railway has his head-quarters at Mooltán, and his subordinate, an Assistant Engineer, lives at Adamwáhan. The Inspector of Schools has his head-quarters at Mooltán.

SECTION B.—LAND AND LAND REVENUE.

Assessments under native rule.

Under native rule there were four modes of collecting the revenue: 1, *jinsí*, 2, *nakdí-jinsí*, 3, *zabtí*, 4, *karárí*. They were all based on the theory that the Government was entitled to a share of the gross produce, called *mahsúl*. This varied from ⅓rd in the river lands to ⅙th in the high lands, the general rate being ¼th. But the actual rate fixed for any particular village depended mainly on the proprietor's influence and his power of resistance. Thus in the Luddan *taluqa* in the Mailsi *tahsíl*, held by the powerful tribe of Joyahs, the Government had to be content with ⅙th even for river lands, and in the Sarai Sidhú *tahsíl* it had to accept the same rate for most of the lands held by the Hirájs and other Siáls. Putting aside fear or favouritism, it may be said generally that ⅓rd was the rate for *sailáb* lands, ¼th for good well lands, and ⅕th and ⅙th for inferior wells. When this share of the produce or the *mahsúl* was actually taken in kind, the assessment was called *jinsí*.

The *mahsúl*.

I.—*Jinsí*.

II.—*Nakdí-Jinsí*.

Nákdí-jinsí (or cash kind) is the first step towards a cash assessment. The *mahsúl* was still fixed at a certain rate, and set

Chapter V, B.

Land and Land Revenue.

aside at the division of the produce. But instead of its being carried off by the Government official, the *zamíndár* was compelled to purchase it at a rate fixed by Government, which was generally considerably above the market rate of the day.

III.—*Zabti.*

The proper word is said by Mr. Roe to be probably *zabdí* from *zabdah* the best,* for it was usually only to the superior crops, such as indigo, sugar, &c., that this assessment was applied. The *zabtí* was a rate per acre for each crop, collected by annual measurement. It is the second stage towards a cash assessment.

IV.—*Karárí.*

By the *patái* or *karárí* system a *pattah* or lease was given for a plot of land (usually a well), fixing its assessment at a lump sum, varying from Rs. 12 to 20. No period was assigned for this rate, and if it had been really all that was levied, it would have been a permanent cash settlement. But this was very far from being the case. The *karárí jama* covered not whatever land might be irrigated from the well, but only the land mentioned in the *pattah*, which would generally be 25 *bígahs* of wheat for the *rabí* and 5 *bígahs* of cotton and 15 *bígahs* of *jowár* for the *kharíf*. All extra cultivation was charged,—wheat Re. 1-8-0 per *bígah*, *tára mírá* Re. 1-5-0, cotton Rs. 2, *jowár* Re. 1, sugar seed and suckers Re. 1-6-0, indigo and vegetables Rs. 4. On all indigo, sugarcane and rice, the proprietor had to pay one-sixth or one-seventh of the gross produce, plus Re. 1-4-0 per 100 maunds of *gúr*, and Re. 1 per maund of indigo, as the pay of the *mohassil*, or man employed by Government to guard the crop. On the same account the cultivator had to pay Re. 1-4-0 per maund of indigo, and 3 pie per maund on the value of his own share of the *gúr*, sugarcane and paddy.

Extra charges.

No one of these four systems was applied uniformly to a whole tract of country, or even to a single village; indeed it was quite possible for all four systems to be in use within a single holding. Nor do the charges above enumerated under each system represent all that was paid. They may be termed the ordinary charges, but, besides downright exaction, there were many other items which were levied as a matter of course. The proprietor had to pay *malbah*, and the continuance of his *karárí* lease depended on his fully keeping up the cultivation of his *jinsí* lands. In some places Rs. 8 per maund were charged as *moghala* or royalty on all indigo sold; in some tracts sums were levied as *shukráná*, or "thank offerings." Rs. 200 were thus levied in the Kotlí *talúqa*, and Rs. 300 in the Panjání *talúqa* of the Shujábád *tahsíl*. Other tracts were called on to pay *nazarána* or tribute; in well lands held on a *karárí* lease this would be an addition of Rs. 3 or 4 to the cash *jama*; in the Sikandarábád *talúqa* a horse was demanded, and then this was converted into an annual payment of Rs. 1,000. Sometimes too Rs. 2 or 4 per well were levied as *charái* or pasturage dues, and sometimes the crops used for fodder, *e.g.*, gram, *methra*, *chíná*, &c., were charged at enhanced rates. The native revenue system as practically administered was

* NOTE.—Major Wace questions the correctness of this derivation of the word *zabti*. He has always understood it to be derived from the word *zabti* or *zabita*, and to indicate the revenue of which the amount is fixed by rule, as opposed to the revenue levied by division of the produce (*batái*) of which the amount cannot be fixed as it varies with the character of each harvest.

Chapter V, B.

Land and Land Revenue.

1st Summary Settlement.

something very different from the simple thing it appears when sketched in outline on paper.*

Immediately after annexation orders were were issued for the introduction of cash assessment throughout the district. These orders were carried out by Lieutenant James for the Shujábád, Lodhrán and Mailsi *tahsils*, by Mr. Edgeworth, the Commissioner, for Sarai Sidhú, and in Mooltán four of the six *tarafs* were assessed by him, and the remaining two by Captain Morrison, Deputy Commissioner. Lieutenant James' reports on the tracts assessed by him were submitted in 1849, and the Settlement was sanctioned for three years in 1850. In the same year Mr. Edgeworth reported the assessments of the Mooltán and Sarai Sidhú *tahsíls*. It was of course impossible to attempt any measurements, or ascertain the capacity of the estates in detail. All that could be done was to make a rough account of what had hitherto been paid, to abolish objectionable charges, and to grant reduction to those tracts of country which on a cursory inspection appeared to be suffering. No general attempt was made to form assessment circles, but in some *táluqas* the villages were grouped for the purpose of receiving reduction into—1, those directly affected by the river; 2, those indirectly affected; 3, good well lands; 4, poor well lands. The records of collections under Native rule were kept according to the old *táluqas*. In the Sarai Sidhú, Lodhrán and Mailsi *tahsíls* these were real local sub-divisions, each containing the villages around the town after which the *táluqa* was named. The Sarai Sidhú *táluqas* were 1, Talamba, 2, Sidhnai (or villages across the Rávi on the Sidhnai reach), 3, Sarai Sidhú, 4, Sardárpúr; those of Lodhrán were: 1, Ghazípúr, 2, Bahádarpúr, 3, Sardárwáh (or villages benefited by the Sardárwáh canal); those of Mailsi were: 1, Kahror, 2, Mailsi, 3, Kháí, 4, Tibbah. The *táluqas* of Mooltán and Shujábád were also named after the most important towns, but the villages were grouped in them without reference to locality or any other principle. The reason of this probably is that they were used as appanages of the ruling family, or favourite chiefs, who each joined to his own *táluqas* what villages he pleased. From the records of these *táluqas* a statement was prepared showing the average collections

* In para. 19 of his report on his assessment of the Mooltan *tahsil*, Mr. Edgeworth gives the following list of *sewai* or extra charges, found in existence by him:—

1. *Nazar cháhi*—Re. 1 to Rs. 2 per well for each season.
2. *Malbah.*—The same as our *talabáná*.
3. *Dabira.*—1 pie per maund for the *dabir*, or weighman.
4. *Mahasilar.*—1 pie per maund for the *mohassil*, or guardian of the crop.
5. *Farohi.*—Miscellaneous fines.
6. *Júft Nargao.*—Re. 1 per yoke of bullocks on wells paying a fixed *jama*.
7. *Abiáná*—Rs. 1 to Rs. 2 per *jhilár*, collected in *kharíf*.
8. *Hisábáná*—Annas 4 to annas 8 in lieu of keeping a *mutsuddi*, for the accounts.
9. *Kadam Kash.*—Annas 8 per well of which annas 4 went to Government and annas 4 to the *kushi* or appraiser.
10. *Dharath.*—Half *paisa* per Re. 1 on all grains sold by the *zamindárs* taken from the purchaser.
11. *Tirni of goats.*—one anna per goat.
12. *Orderly.*—Annas 4 to annas 5, collected on the whole Taraf Rávi for the orderlies.
13. *Guzráná.*—Annas 4 to annas 8 per well levied from the *dhobi* using the water for washing; as much more was taken by the proprieter of the well.
14. *Khatti nil.*—Annas 2 per indigo vat.

All these items, except No. 8, *abiána*, which was retained for the *taraf* as a water-rate, were abolished by us.

Chapter V, B.

Land and Land Revenue.

1st Summary Settlement.

for each village of the four previous years. After deducting all the cesses or extra charges, such a percentage of reduction was granted as the assessing officer thought necessary. Such reduction varied in Mooltán from 10 to 24 per cent., in Shujábád from 14 to 20 per cent., in Lodhrán from 11 to 21 per cent., in Mailsi from 15 to 25 per cent., and in Sarai Sidhú from 10 to 20 per cent. In Mailsi the *sailáb* lands of some of the *tálúqas*, and the *rahnás* or hollows of the *bár*, received no fixed assessment; all cultivation in them was to be measured annually and assessed at Re. 1 per *bígah*, or Rs. 2 per acre. The total *jama* of the first Summary Settlement was Rs. 5,80,601; the cultivation of that period cannot be ascertained, but on that of the Regular Settlement the rate of the *jama* would be Re. 1-5-0 per acre. All the reports by Lieutenant James and Mr. Edgeworth, and the letters conveying the orders of the Board, are most interesting, and show that, considering the data available, the assessments were framed with the greatest possible care and regard for the interests of the people. In fact in some *tálúqas* the Board considered the reductions granted unduly liberal. But it was soon found that the Settlement would not work, and its break-down was inevitable from the following causes :—

Causes of its breaking down.

I. In most of the villages, especially in the Lodhrán and Mailsi *tahsíls*, the *jama* had been collected in kind, the "average collections of the past four years" was merely a paper estimate: the *jama* represented by it had never really been collected in cash, and the reductions granted were therefore only nominal.

II. The price current used in framing the estimate of the collections was taken from the old records, and this was considerably above the true one. Furthermore, on the restoration of peace, the return to their homes of the old Sikh army, and the withdrawal from the Punjab of a great portion of the British forces, there was a great and rapid fall in prices.

III. The system of abolishing all cesses and granting a general percentage of reduction worked most unequally, for, as already shown, under the native system the assessments nominally fixed in cash, like those of many wells, consisted in a great part of these cesses, whilst the lands which paid in kind have comparatively few extra charges to bear. The general abolition of all cesses, therefore, left some lands with a very light *jama* indeed, whilst to others it gave scarcely any relief. From the above causes it may be said generally that the 1st Summary Settlement was light for the well lands, but too heavy for the river and canal lands. It was also found that reductions were not properly given for land cut away by the river, or on account of failure of the canals. The consequence was that the Settlement soon began to break down generally, and large remissions had to be granted. For the Shujábád *tahsíl* the Commissioner was obliged to propose a general reduction of from 10 to 20 per cent. The sanction of the Board was given to this in 1852, and at the same time orders were issued for a second Summary Settlement.

2nd Summary Settlement.

This was made for Shujábád and Lodhrán by Major Hamilton, who was Deputy Commissioner from 2nd February, 1853, to 17th May, 1854, and by his successor, Mr. H. B. Henderson, for the other *tahsíls*. No field maps were made, but the land, or at any rate the

2nd Summary Settlement.

cultivation, was measured, and the villages were formed into the following assessment circles :—

I. *Khádar*,—containing those near the river.

II. *Mashmúlah*,—containing those between the *khádar* and *bángar*, and corresponding mainly to our present *bángar* and *utár chaks*.

III. *Bángar*,—containing the villages far removed from the river and corresponding to our present Ráwá.

In each circle the villages were sub-divided according to their means of irrigation, and in each sub-division they were again classified according to the supposed qualities of their soil, &c. Experiments were then made to ascertain the rate of yield of each class of land; and an estimate was made of the value of the Government share of the produce for that land, the share generally adopted being $\frac{1}{4}$th for *sailáb* and simple canal lands, $\frac{1}{3}$th for well lands and for all sugar and indigo, except in the Ráwá, where the rate for indigo was fixed at $\frac{2}{11}$th, and that for sugar at $\frac{1}{6}$th. These were the Shujábád rates; no doubt there was some variation in the other *tahsíls*, but probably the general principle adopted was much the same. On the cash rate thus obtained the leading *zamíndárs* and most experienced officials were then consulted, and a scale of revenue rates was finally fixed. Applying these rates to the different classes of land in each village, and deducting 5 per cent. for the *lambardár* and 3 per cent. for the *patwári*, a revenue rate *jama* was obtained which formed the basis of the new assessment, although Major Hamilton at least did not hesitate to depart from rates when the actual circumstances of a village made it necessary for him to do so. In the *khádar* circles a fixed *jama* was given only for the lands beyond the immediate action of the river; the *sailáb* lands were left to be assessed by annual measurements. Except in Lodhrán, where the 1st Summary Settlement had broken down utterly, and where general and large reductions had to be granted, the general result was a reduction of the assessment in the river villages, and an enhancement more or less considerable in the well lands. The figures show that in Mooltán there was an increase of 14 per cent., in Shujábád one of nearly 3 per cent., in Mailsi one of 2·6 per cent., and Sarai Sidhú one of 13 per cent., whilst in Lodhrán there was a reduction of 17 per cent. For the whole district the *jama* of the 2nd Summary Settlement was Rs. 5,78,163, or 0·4 per cent. less than the first, and its rate per acre on the cultivation of the Regular Settlement was Re. 1-4-11.

Working of the 2nd Summary Settlement.

Mr. Morris' opinion of this assessment is that it could hardly be called high, and it was generally collected without any great difficulty. The reductions given by it were required, but the enhancements were scarcely judicious. Taking any *tahsíl* as a whole its general condition did not justify an increase, and it would have been better to have been content with the total of the old *jama*, merely distributing and taking sufficient enhancements to recover the reductions which had to be given. He thinks the sub-division and classification of villages was too minute, and that it led sometimes to a disregard of their actual condition. He considers too that there was a great tendency to over-estimate the profits of indigo, and to over-assess the canal lands generally, sufficient allowance not being made for the uncertainty of the irrigation. The system of assessing *sailáb*

Chapter V, B.

Land and Land Revenue.

Working of the 2nd Summary Settlement.

lands by annual measurements turned out a complete failure, and Mr. Morris consequently abandoned it at the Regular Settlement. But the cause of the failure was a very simple one. When annual measurements were ordered, the Deputy Commissioner omitted to fix any rate of assessment; each village was therefore assessed at its own *partah deh, i.e.*, the rate at which the *jama* of the year of Settlement happened to fall on the cultivated area of that year. The consequence was that of two adjoining villages, one would be paying 3 annas and the others Rs. 2 or 3 per acre for precisely similar lands. Failure due to such an obvious oversight as this can hardly be considered sufficient reason for a general condemnation of the system of assessment by annual measurements.

Regular Settlement.

The Regular Settlement was effected by Mr. Morris, C.S. (lately Chief Commissioner of Central Provinces), who had already settled Gújránwálá. It was commenced in 1857 and completed in 1860. Mr. Morris discarded the minute sub-division and classification of the 2nd Summary Settlement, but retained the general *chaks*, or assessment circles, with little alteration. He changed the name of the Rávi *khàdar chak* to *bet*, and of the Chenáb *khàdar chaks* to *hitàr*; all the *bàngar chaks* became *ràwàs*, and the old *mashmùlahs* became *bàngars* on the Rávi and Sutlej, and *utàrs* on the Chenáb. In the Mailsi *tahsìl* he added the intermediate *chaks* called the "adjoining *khàdar*" and the "adjoining *ràwà*." He then thoroughly inspected each *tahsìl* and each *chak*, and from the general appearance of the country and of the people, came to the conclusion that a certain rate of reduction was necessary. The revenue rates adopted were of two kinds—1, land rates, or a cash rate per acre for the different classes of land, *i.e.*, for canal alone, canal and well, well alone, and *sailàb*; 2, well rates, or a lump sum per well for all land inside wells, with the usual land rates for the land outside. Mr. Morris says that although there had been but few actual balances, yet he found everywhere great complaint and discontent, and in some villages much actual suffering. Most of the villages had proved quite unable to bear the enhancements of the 2nd Summary Settlement, and the general result of Mr. Morris' assessment may be described as a remission of this enhancement to meet cases of actual suffering, and a further reduction all round to cure the general discontent. In Mooltán and Sarai Sidhú the *jama* still remained a little above that of the 1st Summary Settlement, but in the other *tahsìls* the reduction was considerably below this limit. On the 2nd Summary Settlement Mr. Morris' assessment gave a reduction of nearly 7 per cent. in Mooltán, of 16 per cent. in Shujábád, of 20 per cent. in Lodhrán, of 23 per cent. in Mailsi, and of 10 per cent. in Sarai Sidhú; its total amount was Rs. 4,82,928, and its incidence Re. 1-1-5 per acre on the cultivated area. For the whole district this was a reduction of nearly a *làkh* of rupees, or between 16 and 17 per cent. on the previous assessment. As already stated, the system of annual assessments for the *sailàb* lands was given up.

Working of the Regular Settlement.

Mr. Morris' assessment was undoubtedly light, and there were many good reasons why it should be so. It is quite true that the enhancements of the 2nd Summary Settlement had been severely felt in some villages, and that reductions were required there. But

the great reason for the lightness of the demand was that the assessments were made in 1858, the year after the mutinies. A light assessment was desirable on the grounds of general policy, and in addition to this the chiefs and the country people generally had come zealously forward during the troubles and ranged themselves on the side of Government, and their loyalty could hardly be rewarded by an enhancement of their assessment. The demand of the Regular Settlement had, when revised, risen to Rs. 5,08,924,* an increase of 5 per cent., but owing to the increase of cultivation its incidence has fallen to just under Re. 1 per cultivated acre. This increase in the demand was due to the action of the rivers, the resumption of *máfis*, new grants of waste land, and progressive *jamas* on old grants; on the regular villages there were no progressive *jamas*. It may be said that the revenue was collected without any real difficulty. Here and there an individual village required relief, and in 1869-70 the state of the Ráwá circles of Sarai Sidhú and Mooltán induced the Deputy Commissioner to recommend general remissions; but before orders could be obtained, good rain fell, and the remissions were not required. The greatest proof of the lightness of the demand is that Mr. Morris' plan for remissions of the canal and *sailàb jamas* has never been brought into force. He proposed, in fact he made it a condition of his Settlement, that, whilst no reduction should be made for ordinarily unfavourable years, in cases of great and general failure of the *sailàb* or canals, the revenue assessed on the *sailàb* or canal lands, which he showed separately, should be remitted wholly or in part.

Chapter V, B.

Land and Land Revenue.

Working of the Regular Settlement.

This remissible revenue was as follows :—

I.—REVENUE DUE TO *sailàb*.

	Rs.	
On the Chenáb	40,229	
Do. Sutlej	15,845	
Do. Rávi	3,105	
		59,179

II.—REVENUE DUE TO CANALS.

	Rs.	
I.—Chenáb canals	1,25,190	
II.—Sutlej canals	89,475	
		2,14,665
Total remissible *jama* ...		2,73,844

Thus over 56 per cent. of the total *jama* was remissible.

The assessment of the Regular Settlement came into force in 1858. The Settlement had been sanctioned for ten years only, but was allowed to run on till 1873, when it was revised by Mr. Roe, who reported his proceedings in 1880. The few following pages will briefly state the basis of the new assessment, its results, and the nature of the system followed with respect to certain points which called for special treatment. More detailed notes on each of the circles into which Mr. Roe divided the district, together with a table of the revenue rates used by him in his assessment, will be found in his Settlement report.

Revision of Settlement, 1880 A.D.

* NOTE.—This is for the regular village areas. For the whole district, including the grants of waste lands to Ghulám Kadir Khán and others, the *jama* was Rs. 5,17,832.

Chapter V, B.

Land and Land Revenue.

Revision of Settlement, 1880 A.D.

As the cattle are largely, often entirely, dependent for their food on the produce raised by irrigation, and as the kind rents levied by owners make liberal allowances for this, before reckoning the rent share of which Government claims half, 16 per cent. of the produce was deducted for feed of cattle. Of the balance, on the average 12 per cent. was again deducted for dues paid to menials. After making all these deductions, the share of the produce reckoned by the Settlement Officer as the half rent or half assets due to Government was for each *tahsíl* as shown in the margin, where is added for comparison the percentage which the revenue actually assessed bears to the total produce.

Tahsil.	PER CENT. OF TOTAL PRODUCE.	
	Estimated half assets.	Actually assessed.
Mooltan ..	12·7	12·6
Shujabad ..	14·7	11·7
Lodhran ..	13·3	11·4
Mailsi ..	12·4	12·1
Sarai Sidhu ..	16·8	12·0
Total district ..	13·5	12·0

Omitting the increase of date revenue Rs. 6,229, the net result of the new assessment for the whole district was an increase of Rs. 1,80,313, or 36·6 per cent. on the revenue assessed at last Settlement, and 25 per cent. on the average realisations of the last five years of its currency. The increase of cultivation and increase of revenue in each *tahsíl* compare as shown in the marginal table. Irrigation had increased from 75 to 82 per cent. of the cultivation. In addition to the increase in cultivation, the Settlement Officer estimated the effective rise in prices at 25 per cent.; though the actual rise shown by the figures was about 41 per cent.

	Per cent. increase of cultivation since last Settlement.	Per cent. increase of new assessment on that of last Settlement.
Sarai Sidhu ..	9	53
Mooltan ..	20	49
Shujabad ..	10	10
Lodhran ..	19	26
Mailsi ..	16	72
Total district ..	16	39

The rate of assessment per acre cultivated averaged at last Settlement Re. 1-1-9; but at the expiry of its lease it had fallen by increase of cultivation to one rupee. The average rate of the new assessment per acre cultivated is Re. 1-5-0. If the date revenue and the cesses and local rates are added, the total charges on the land average Re. 1-10-0 per acre cultivated.

Revenue rates.

The revenue rates for each circle are given in detail in the Settlement report. *The lands dependent solely on rain* are of trifling extent, and have been assessed throughout at 4 annas an acre. *The river alluvial lands* of the Rávi and Sutlej (locally known as *bet* and *khádar*) have been assessed at one rupee per acre; and that of the Chenáb, locally known as *hitár*, at rates varying from 14½ annas in Sarai Sidhú to Re. 1¼ in Shujábád; but the rate generally applied is 17 or 18 annas. All the river alluvial lands are assessed on the fluctuating system. There are some trifling areas occasionally flooded by the rivers assessed at lower rates (fixed) in circles beyond the regular limits of the floods. The assessment on *canal lands irrigated by flow* varies from 12 annas to one rupee per acre; but in the best part of the Shujábád *tahsíl* and immediately outside the Mooltán city, Re. 1½ has been assessed. The rate on *canal lands*

Chapter V, B.

Land and Land Revenue.

Revision of Settlement, 1880 A.D.

irrigated by lift is the same as that on flow, except in *bángar* and *utár* lands, where the lift is considerable, in which cases the rate is from three-fourths to half of the flow rate. *The assessment on lands irrigated by wells alone* is much the same as that on canal flow irrigation; but it rises in the best tracts to Re. 1-2-0 per acre; and falls in the dry Ráwá of Sarai Sidhú and Mooltán to 9 annas per acre. *Wells aided by canals* pay in the dry Ráwa from one rupee to Re. 1½ per acre; in the *bángar* and *utár* circles from Re. 1 to Re. 1-12-0; and in the *khádir* circles much the same, the lowest level being 18 annas. A large area of this land (27,953 acres) in the rich *utár* circle of Shujábád pays Rs. 2-3-0 per acre; and a small area near the Mooltán city pays Rs. 3½ per acre. The well assessments were reckoned in some cases at a lump sum per well, as, for instance, in Shujábád Ráwá Rs. 13 per well; and in the *bet* and *hithár* of Sarai Sidhú Rs. 33 and 18 per well. In the circle where *wells are aided by river floods*, the rate is usually a little lower than that charged on wells aided by canals. Where a considerable area before irrigated by canals has been returned as recently abandoned or fallow, and where large areas of land have been included in well limits under this classification, a rate has been charged on such lands varying from 1 to 2 annas per acre. The rate for dates is 2 annas per female tree; but very much less than this has been actually assessed.

Results of the assessment.

The figures on the next page show the assessments for each circle.

The new *jama* thus agrees extremely closely with the sanctioned rates, and it gives an increase of Rs. 1,80,318 or 36·6 per cent. on the *jama* of the Regular Settlement, and of Rs. 1,36,637 or 25 per cent. on the average collections of the past five years. . The increase in the date *jama* is Rs. 6,229 or 74 per cent. Adding the dates to the land revenue proper the increases on the Regular Settlement and averages of five years are Rs. 1,86,542 or 37·3 per cent. and Rs. 1,42,866 or 28·3 per cent. respectively.

Mr. Roe thus discusses his assessment:—

Increase fully warranted.

"This is undoubtedly a very substantial increase, but it is fully warranted by the condition of the district as shown by the statistics of Appendix A. From these it appears that the cultivation alone has increased by nearly 70,000 acres, or 16 per cent. It is true that the cultivation of the years of measurement were decidedly above the average, but, if we include the fallow and abandoned of both Settlements, the increase is nearly 50 per cent. Part of this is no doubt due to the different way of classing abandoned land; in the present papers all land which has once been cultivated, however long ago, has been classed as 'abandoned,' but at the last Settlement much of it was classed as culturable. It would be unsafe therefore to lay very much stress on the increase of area in this class, but still it may count for something, and then there is the improvement in the quality of the cultivation to be considered. New wells have been sunk in *sailáb* lands, and canal irrigation has been extended to wells which formerly worked alone. The total number of wells in use was 11,687¼; it is now 13,096, which gives an increase of 12·05 per cent. We can hardly trust ourselves to draw much inference from the statistics of ploughs and cattle, but there has certainly been an increase in the population, which in a district like Mooltán is decidedly a benefit. The rise in prices is very considerable, and it may be looked on to a great

Chapter V, B.

Land and Land Revenue.

Results of assessment.

Tahsil.	Assessment circle.	Assessment of Regular Settlement, 1858 A.D.	Average collections of 5 years before revision.	Demand at sanctioned rates.	Final assessment, 1880 A.D.	DATES AND SAJJI DEMAND. Regular Settlement.	DATES AND SAJJI DEMAND. Revised assessment.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Serai Sidhu.	Bet	10,683	...	19,036	18,148	754	1,380
	Bángar	13,155	...	12,599	14,744	1,596	2,384
	Hithár	10,888	...	12,254	11,697	...	...
	Utár	7,493	...	8,728	8,928	...	...
	Ráwá	4,180	...	3,762	6,847	...	...
	Total ...	47,399	...	56,379	58,364	2,350	3,764
	Darkhwàsti grants ...	...	...	...	8,445	...	...
	Grand Total ...	...	...	...	66,809	...	...
Mooltán.	Hithár	41,657	51,527	60,202	58,218	2,872	4,758
	The Tarafs	10,554	10,240	16,659	16,050	512	1,025
	Utár I	30,756	30,972	43,095	40,825	...	35
	Utár II	18,437	19,494	29,350	28,583	56	271
	Ráwá	4,941	6,364	7,624	8,491	...	...
	Total ...	1,06,345	1,18,597	1,56,930	1,52,167	3,441	6,089
	NEW VILLAGES.						
	Utár II	278	608	867	633	...	...
	Ráwá	...	130	295	250	...	...
	Darkhwàsti grants ...	1,304	4,366	5,100	4,941	...	...
	Grand Total ...	1,07,927	1,23,701	1,63,192	1,57,991	3,440	6,089
Shujábád.	Hithar I	32,000	30,442	26,715	28,559	75	148
	Hithár II	13,065	12,944	14,416	13,976	22	68
	Utár I	57,215	57,021	63,319	63,615	95	275
	Utár II	7,653	7,939	10,790	10,675	6	40
	Ráwá	7,811	8,306	12,509	12,185	...	...
	Total	1,17,744	1,16,652	1,27,749	1,29,010	198	531
Lodhrán.	Hithár	24,270	28,443	29,871	30,967	47	210
	Khádir	22,317	27,216	30,021	30,881	125	278
	Bángar	48,595	48,228	58,635	59,077	40	40
	Ráwá	18,973	18,150	24,371	23,970	...	...
	Total ...	1,14,155	1,22,037	1,42,898	1,44,895	212	528
	Darkhwàsti grants ...	...	...	...	231	...	...
	Grand Total ...	...	...	...	1,45,126	...	...
Mailsi.	Khádir	19,690	28,811	31,719	32,647	370	666
	Adjoining Khádir ...	21,349	21,439	28,517	28,855	1,403	2,358
	Bángar	35,919	36,343	52,162	50,500	117	315
	Adjoining Ráwá ...	18,372	18,980	32,938	32,808	200	145
	Ráwá	5,131	5,913	7,824	7,955	67	120
	Total ...	1,00,461	1,11,486	1,53,160	1,52,765	2,157*	3,604†
	Total district, including *Darkhwàsti* ...	4,92,313	5,35,989	6,71,178	6,72 626	8,357	14,588

* Dates	...	...	...	...	...	1,855	3,339
† Sajji	...	...	...	...	...	302	265

Chapter V, B.

Land and Land Revenue.

Increase quite sufficient.

extent as permanent. The rate of the assessment per acre of cultivation, which was Re. 1-1-9 at the Regular Settlement, has only risen to Rs. 1-3-10.

"Whilst the new *jamas* are by no means excessive, they can hardly be exposed to the charge of being unduly low. They are well up to the sanctioned revenue rates, and they are within 15 per cent. of our maximum standard, the half net assets estimate. If the assessment circles are examined in detail it will be found that it is only in the canal lands that there is even this deficiency, and the reason why in such lands we *must* go well below this estimate is clearly put by Mr. Lyall, where he says: 'The real reason in my opinion why the estimate points to an increase which it is impossible to take, is that we cannot, in making a fixed assessment for a term, to be paid by a generally poor and improvident race of *zamìndàrs*, assess nearly up to the true average half net assets in a country in which the assets vary so greatly from year to year as they do in these circles. To show how great these variations are, I may mention that by the canal returns the area of irrigation of the Sutlej canals connected with the Lodhrán *tahsìl* was 37,000 acres in 1873-74 and 58,000 acres in 1874-75, and this difference in area does not nearly indicate the difference to the *zamìndàrs*, for in the first year the supply was generally late and inconstant as well as short. The difference in the total assets of the canal-irrigated tracts for the two years was probably at least cent. per cent., and to individual *zamìndàrs* the difference must very often have been immense. If the general state of the things were utterly different from what it is; if every *zamìndàr* started with a moderate capital to help him over bad times, if he lived persistently on a certain sum a month, and if he had a bank in his village to take care of his savings, no doubt in a period of 20 years he would make his fortune even if we took our full half net assets estimate. But things being as they are, we must be content to lower our demand considerably."

Khám tahsíl.

Besides the regularly settled villages there is a cultivation known in this district as *khàm tahsìl*. When a supply of *sailàb* reaches the low parts of the Government jungle, permission can be obtained through the *tahsìldàr* to cultivate the lands thus fertilized on payment of an acreage rate levied on the cultivation by measurement. But this permission in no way confers any permanent right; the management of the grants rests entirely with the Deputy Commissioner, who fixes the rates. The rates were originally 8 annas per acre for *bàrànì* and Re. 1 per acre for *sailàb* cultivation, but in 1873-74 an increase of 50 per cent. was made on account of *màlikànà*, and cesses were also imposed, so that the rates were really raised to 14 annas and Re. 1-12-0 per acre respectively.

Date *jama*.

Mr. Roe estimated the average outturn per date tree at from $1\frac{1}{2}$ to $2\frac{1}{2}$ maunds, and the price at 2 maunds per rupee, thus making the value of the gross produce from 12 annas to Rs. 1-4-0 per tree, or an average of Re. 1, and considered that Government was theoretically entitled to one-fourth of this, or annas 4 per tree;* but whatever might be its abstract right, the date *jama* had always been treated as practically a part of the land revenue, and the Settlement made with the *zamìndàrs* of the villages in which the trees grew.†

* NOTE.—Throughout this paragraph, "tree" means female trees; male trees, young plants, and neuter trees or *khasis*, are not counted for assessment purposes.

† NOTE.—Along the Sidhnái reach a strip of land covered with date trees generally belongs to Government; the Settlement of the *jama* of these has been made with the *zamìndàrs* of the adjoining villages, but their only right is to the produce of the trees.

Chapter V, B.

Land and Land Revenue.

Date *jama*.

It was necessary to continue this system, and, as with the land revenue, the amount of the existing *jama* had to be taken into very serious consideration. Mr. Roe proposed a rate of two annas per tree throughout the district, but found that in actual assessment he was generally obliged to be content with about half of it, or one anna per tree. He writes: "It may be a question whether "I ought not to have lowered my revenue rate to something more like "what I found it possible to take; but I considered that two annas "was defensible on all theoretical grounds; it was certainly a fairly "low estimate of the Government's proper share of the produce, and "I preferred to retain it as the nominal standard."

General question of assessment of river lands.

Ever since the annexation of the Punjab a controversy has been going on as to the correct mode of assessing lands on the borders of the rivers. Should they be assessed with a fixed *jama*, subject only to alteration in accordance with the North-West Provinces' rules of alluvion and diluvion, or should their assessment vary with the extent of their cultivation, and be levied by annual measurements at an acreage rate? It was admitted that the action of the rivers was violent and capricious, but it was thought that alluvion and diluvion rules would meet all cases of great change; and, that if the assessment were moderate, the profits of good years would more than equal the losses of bad years. A fluctuating assessment was considered opposed to all the principles of our revenue system, and it was feared that the introduction of annual measurements would lead to great corruption. At the Regular Settlement both of Montgomery and Mooltán fluctuating assessments were advocated,—in the former by Mr. Vans Agnew, the Settlement Officer, and in the latter by Colonel Hamilton, the Commissioner, but their views were over-ruled for the reasons above given, and fixed assessments were introduced. They have not been a success in either district, and that their failure was not still more disastrous than it was, has been due entirely to the fact that, as a rule, the *jamas* were extremely light. But they did fail and cause ruin to many villages, both in Montgomery and Mooltán. The reason why the diluvion rules fail generally to give relief in cases of distress is that they only contemplate actual diminution of area or deterioration of soil. If land is cultivated one year, and remains uncultivated the next without any particular change in its quality, its assessment remains unchanged. But this is the very way in which the rivers most often work. They fail to rise to their ordinary level, or some channel gets stopped up, and the result is that a large tract, which was assessed perhaps at Rs. 1,000, and might easily have paid Rs. 2,000, fails entirely to receive *sailáb*, and remains uncultivated and unable to pay a farthing. But no remission is granted, and the village plunges heavily into debt to raise its *jama*. If this state of things continues for another year or two years, the result is absolute ruin. Government too suffers a great loss, for it is obliged to grant remissions when severe distress is brought to its notice, and it cannot recoup itself by an extra assessment on increased cultivation. The immediate collapse of the revised assessments of the *sailáb* lands in Montgomery, and the impracticability of imposing a fixed assessment which should not fall considerably below the share of the produce which Government might fairly expect to recieve, led to the adoption

of the fluctuating system throughout the Mooltán district at the rovision of 1880.

Principles of the new system.

The principles of the system in the district are these: All wells, with the land attached to them, are assessed as before with a fixed *jama*, which covers also the non-well lands, except so much of them as is cultivated by means of *sailàb* or *jhalàrs*. For this cultivation an acreage rate is fixed at Settlement, for each village, and is levied by annual measurements; in Mooltán the following rates per acre have been sanctioned:—

Tahsil.	*Chak.*	*Sailàba.* Rs.	A.	P.	*Jhalàr.* Rs.	A.	P.	
Sarai Sidhú	... Bet ...	1	0	0 ...	1	0	0	
	Hithár...	0	12	0	... as *sailàb.*			
		0	14	0				
		1	0	0				
Mooltán	... Hithár...	1	1	0 ...	1	5	0	
Shujábád	... Hithár I	1	2	0	...0	2	0	above *sailàb.*
		1	4	0				
	Hithár II	1	1	0 ...				Do.
Lodhrán	... Hithar...	1	2	0 ...	1	2	0	
	Khádar	1	0	0 ...	as *sailàb.*			
Mailsi	... Khádar	1	0	0 ...	as *sailab.*			

But *nautor*, or land newly brought under cultivation, is asssessed at half rates for two years, and afterwards at full rates. No rate beyond anything that may have been taken in the original fixed *jama*, is charged for uncultivated land of any description. On the Sutlej there are a few villages where there was reason to believe that cultivation was intentionally neglected, either in order to keep the land for a grazing ground, or from mere indolence; and it was feared that when the new system became thoroughly understood large areas might be wilfully thrown out of cultivation, and thus entirely escape the payment of land revenue. To guard against this it was decided that Government "should reserve to itself the right to cancel "the Settlement on the fluctuating system, and substitute a fair "fixed assessment for the rest of the term of Settlement on the old "system, in the case of any village, the proprietors of which are "known to purposely neglect cultivation. But before such a change "is made in any case, the sanction of Govenment is required."

Working of the fluctuating assessment.

This fluctuating system of assessment applies to the *sailàb* lands on the banks of the Rávi, Chenáb, and Sutlej rivers. Hitherto the gross fluctuations of revenue on each river have not been large; and this result is what might fairly be expected of the new system. Usually a set of the stream against one part of the river's bank destroying the land opposed to it involves a corresponding renovation of other land previously destroyed, the course of the main stream commonly taking a serpentine form. If due vigilance is exercised, no doubt this result of the annual assessments will be maintained. Landowners exposed to such vicissitudes as are caused by river action in these alluvial lands, have a strong claim to the prompt revision of their assessment in accordance with these vicissitudes. And the new system was devised in order adequately to meet this claim. It is a misconception of the system to suppose that it involves the annual remeasurement of the whole of the alluvial tracts. All that it involves is a careful annual field by field inspection. Where there are no changes, no new measurements are required. Measurements are

Chapter V, B.

Land and Land Revenue.

Working of the fluctuating assessment.

only made where changes of cultivation have occurred. The essential difference between the old and new system of assessing these alluvial lands is this: that under the old system failure to cultivate gave no claim to a reduction of assessment; so long as the land was classed as culturable, remissions were not usually allowed. Under the new system revenue is charged annually only on the area successfully cultivated.

New system of assessment of canal lands.

Mr. Morris had at the Regular Settlement divided the *jama* of each village into canal and non-canal, and had provided rules for the remission of the former in case the canals failed. But down to the present Settlement such a remission had never been granted. One reason of this was that Mr. Morris's *jamas*, as a rule, were very light, but even under them some villages have suffered, and no relief was given them because Mr. Morris's rules could not be worked. He contemplated that the Deputy Commissioner and Canal Officer would be able to decide that a canal had failed in some distinct proportion to its full supply, say to the extent of one-fourth or half, and that a general order for a similar reduction of the canal *jamas* of all the villages irrigating from it would give all the relief required. But both these ideas are based on a fallacy. In the first place, it is quite impossible to state that a canal has failed in any definite proportion; in the second place, even if the failure could be thus mathematically defined, a general order for remission in accordance with it would be most inequitable. The circumstances under which irrigation is carried on in the different holdings vary so greatly, some men growing indigo, others only *kharîf* grain, or even *rabi* crops, some getting their water through long cuts, others from the canal itself, some being at its tail, others at its head, that it is obvious that a failure of the canal to the extent of one-fourth might ruin the harvests on some lands whilst it would not perceptibly affect it on others. It was therefore decided at the recent revision of Settlement to treat the holding instead of the village as the unit of the canal assessment, and to adopt the following plan:—

I. The canal *jama* for the whole village was to be divided into canal and non-canal as by Mr. Morris, but this division was further to be carried out in the *bâchh* in detail for every well or *patti* returned in measurement as canal irrigated.

II. If any well or *patti* in any year entirely failed to get canal water, its canal *jama* would ordinarily be remitted, and rules would be framed for the grant of partial remissions, in case of severe partial failure.

III. The canal area should be annually measured, with details for each well and *patti*.

IV. Government reserved the right to cancel the Settlement of any canal village where reductions of assessment were claimed, or frequent remission had to be made, and to substitute fluctuating assessments based upon these annual measurements.

V. All lands not included in the above wells and *pattis*, i. e., not assessed at the present Settlement with a portion of the canal *jama*, will pay a light water-advantage rate in addition to their new non-canal assessment, in the event of their taking water hereafter. The rate for new land irrigating hereafter has been fixed throughout

Chapter V, B.

Land and Land Revenue.

the district at 8 annas per acre, to be levied by annual measurement of the area irrigated.

New system of assessment of canal land.

These general principles were supplemented by detailed rules, which will be found at pages 144-45 of Mr. Roe's report. For the whole district the new canal *jama* is Rs. 2,74,609; the former canal *jama* was Rs. 1,97,393, so that the increase is Rs. 77,216, or 39 per cent. The total *jama* (canal and non-canal) of the villages irrigating is—former Rs. 405,426; present Rs. 4,83,016, which is an increase of Rs. 77,590, or 19 per cent. This is the real canal *jama* which is remissible in case of the failnre of the canals. But the *jama* for which the Canal Department is to take credit as a matter of account, is not this *jama*, but a nominal *jama* of two-thirds of the *jama* actually distributed on the canal and well lands, and the whole of that distributed on the simple canal lands at the present Settlement. The *jama* thus to be credited to the canals is Rs. 3,11,005, which is Rs. 36,396 more than the remissible *jama*.

Working of the new system.

As far as can be foreseen, the assessment of this canal-advantage rate on extension of canal-irrigation is not likely to give much trouble or to bring in much revenue. Almost all the canals have already been extended to the utmost of their capacity, and every well or *patti* which has hitherto got a supply of canal water, however uncertain or scanty, has been treated as canal-irrigated in the present Settlement. So, unless large works in the way of widening and extending the canals are undertaken (which does not seem probable), the area assessable with the rate will be at first *nil*, or extremely small, and will increase very slowly. It is not intended that a mere accidental flooding of land, due to bursting of banks or the running away of water at the tail of a canal in an exceptional season, shall be treated as an extension of canal irrigation and chargeable with the rate. When an extension to a new well or *patti* does occur it will generally be patent enough; a new *kassí* or water-course will have to be made, or an old one extended, and the well or *patti* will also be brought by the *zamíndárs* themselves on to the roll of *cher* labour assessment. For the above reasons, the assessment of the canal-advantage rate is not likely to be a difficult or heavy piece of work. It is the claims for remission of canal land revenue which are likely to give trouble. In some exceptional years they may be numerous, and they will always require much care and judgment in their disposal, for the question whether a remission should be given or not, and if given to what amount, must be a matter of discretion; no hard and fast rule can be laid down.

Term of Settlement and dates for instalments.

The term of the revised Settlement has been fixed at 20 years throughout the district. The dates fixed for the payment of instalments are as follows:—*Sarai Sidhu*, *kharíf*: 15th December; 15th January; 15th February for sugar-growing villages only. *Rabi*: 15th June; 15th July. *Other tahsíls. Kharíf*; 1st December; 1st January; 15th February for sugar-growing villages only. *Rabi*; 1st June; 1st July. *Date jama* 15th August.

Cesses.

The cesses sanctioned are, in addition to local rates, at Rs. 8-5-4 per cent.

Chapter V, B.

Land and Land Revenue.

Term of Settlement and dates for instalments.

	Rs. A. P.	
Zaildar's cess ...	... 1 0 0	per cent. on the *jama*.
Lambardar's cesses ...	... 5 0 0	ditto.
Patwaris' "	... 5 0 0	ditto.
School ...	... 1 0 0	ditto.
Road ...	... 1 0 0	ditto.
Dák ...	... 0 8 0	ditto.
Total	... 13 8 0	ditto.

But except in the Sarai Sidhú *tahsíl*, the *zaildár's* 1 per cent. has been granted by Government as a deduction from the *jama*.

Sajji and miscellaneous produce.

Maien, gulkesú, sajjí, and all other miscellaneous produce within village boundaries have been taken into consideration in framing the new assessments, and no additional charge can be imposed for anything except the produce of Government waste; and the *zamíndárs* are also entitled to the fish in all ponds and creeks, &c., within their lands. It has been decided that Government only claim a right over the rivers, and that if any of its contractors fish in private grounds they must pay the proprietors the accustomed share. But for fishing in such grounds no licenses are required; the permission of the *zamíndárs* is all that is necessary.

Assignments of land revenue.

Table No. XXX shows the number of villages, parts of villages, and plots, and the area of land of which the revenue is assigned, the amount of that revenue, the period of assignment, and the number of assignees for each *tahsíl* as the figures stood in 1881-82. The following statement shows the assignments of land revenue as they stood at the revision of Settlement concluded in 1880. The total revenue thus assigned is only 3·2 per cent. of the land revenue of the district:—

Tahsíl.	To whom granted.	i.—Grants in perpetuity.			ii.—Life grants.			iii.—Grant for the maintenance of the institution.		
		No.	Area.	Jama.	No.	Area.	Jama.	No.	Area.	Jama.
Mooltán.	i.—Held by residents of other districts.	...	...	...	...	...	...	...	...	...
	ii.—Held by shrines.									
	a.—Hindús ...	10	179	163	...	...	...	7	304	276
	b.—Muhammadans	49	19,572	9,945	...	...	...	1	9	15
	iii.—Held by individuals—									
	a.—Hindús ...	...	...	...	9	99	118	...	...	...
	b.—Muhammadans	...	...	...	26	6,079	3,754	...	...	...
	Total ...	59	19,751	1,008	35	6,178	3,872	8	313	291
Shujábád.	i.—*Nil*									
	ii. *a.*—Hindús ...	...	...	...	...	...	...	...	...	...
	b.—Muhammadans	8	3,337	1,096	...	...	...	...	...	...
	iii. *a.*—Hindús ...	...	...	...	2	10	10	...	...	...
	b.—Muhammadans	...	...	...	4	72	90	...	...	...
	Total ...	8	3,337	1,096	6	82	100	...	...	...
Lodhrán.	i.—*Nil*									
	ii. *a.*—Hindús ...	...	...	...	...	...	...	1	2	1
	b.—Muhammadans	3	166	77	...	...	...	1	4	3
	iii. *a.*—Hindús ...	...	...	...	...	...	...	...	...	...
	b.—Muhammadans	...	...	...	...	...	...	...	...	...
	Total ...	3	166	77	...	...	...	2	6	4

Chapter V, B.

Land and Land Revenue.

Assignments of land revenue.

Tahsil.	To whom granted.	i.—Grants in perpetuity.			ii.—Life grants.			iii.—Grant for the maintenance of the institution.		
		No.	Area.	Jama.	No.	Area.	Jama.	No.	Area.	Jama.
Mailsi.	i.—*Nil.*									
	ii. *a.*—Hindús ...	...	...	...	...	...	...	7	145	72
	iii. *b.*—Muhammadans	8	1,966	854	...	...	...	11	290	53
	ii. *a.*—Hindús ...	..	...	...	3	111	35	...	...	...
	iii. *b.*—Muhammadans	...	...	...	20	12,725	3,146	...	...	...
	Total ...	8	1,966	854	23	12,836	3,181	18	435	125
Sarai Sidhu	i.—Held by residents of other districts ...	...	...	...	7	3,342	992	...	...	...
	ii. *a.*—Hindús ...	1	46	16	...	...	...	15	624	653
	b.—Muhammadans	6	184	86	...	...	...	6	228	77
	iii. *a.*—Hindús ...	...	...	...	3	28	27	...	...	...
	b.—Muhammndans	...	...	...	16	1,082	362	...	...	...
	Total ...	7	230	102	26	4,452	1,381	21	852	730
District Total.	i.—Held by residents of other districts ...	...	...	...	7	3,342	992	...	...	...
	ii. *a.*—Hindús ...	11	224	179	...	...	...	30	1,075	1,002
	b.—Muhammadans	74	25,226	12,058	...	...	...	19	532	148
	iii. *a.*—Hindús ...	...	...	...	17	248	190	...	...	...
	b.—Muhammadans	...	...	...	66	39,957	7,352	...	...	...
	Grand Total ...	85	25,450	12,237	90	23,549	8,534	49	1,607	1,150

The inundation canals of Mooltán.

The principal canals of the district have already been enumerated in Chapter I (page 8), while their nature, the system of irrigation, and their history and early administration, are fully described in Appendix B. That appendix is taken almost verbatim from a report furnished by Mr. Morris when making the Regular Settlement; and it will be sufficient in this place to carry on the administrative history from that time, and to describe the system at present in force. The irrigation from and revenue of each canal is shown in the tables at pages 141 to 144.

The *chher* system.

The *chher* system, as at present in force, of which full statistics will be found in Appendix MII to Mr. Roe's Settlement Report, is simply this: that persons irrigating from the canal, instead of paying a water-rate proper in cash, pay it in kind by themselves, doing the annual clearances of the silt which collects in the canals during the months they are at work.* The labour thus supplied was in no sense forced, the liability for it was a perfectly just contract, deliberately entered into by every man who applied for water, and the penalty for default was not that the defaulter should be seized or imprisoned, but merely that he should pay a fine of 8 annas a day, nearly the whole of which would be expended in hiring another labourer to supply his place. In 1874 an elaborate enquiry was held, and the whole system discussed at length. The results are given in interesting detail at pages 137 to 142 of Mr. Roe's Settlement Report. It appeared that the annual cost of clearances, if done by Government, would fall not far short of Rs. 300,000; and that a canal rate which would double the assessment of the Sutlej canal villages and raise that of the canal

* A labourer thus working is called *chhera*, and a gang of *chheras* makes a *chher*.

Chapter V. B.

Land and Land Revenue.

The *chher* system.

villages on the Chenáb by 50 per cent. would not secure Government against loss. It also appeared that the feeling of the people was very strongly against any radical change in the system. Accordingly Government, while reserving to itself power to abolish the system at any time it may see fit on any canal, and to substitute an equivalent rate to cover the cost of doing the work itself, left the *chher* system practically untouched save in the following particulars. The *chher* unit was 90 days' labour, and the minute sub-division of *chhers* had led to great difficulty and confusion. It was accordingly provided that any owner who owed less than three-sixteenth of a *chher* was bound to compound for it by a cash payment at the rate of six annas a day, to be at once expended by the Canal Officer in the hire of free labour. The distribution of *chhers* was to be fixed for each canal for a period of five years, and to be liable to alteration only on its being shown to be manifestly unjust.

Cash commutation for *chhers*.

The Canal Officer receives from the Deputy Commissioner in actual cash the sums paid for the commutation for *chhers*. The *tarafs* of Mooltán, and four villages which are practically a part of the *tarafs*, have never given *chhers*; they have always paid a cash commutation instead, and this arrangement has been continued at the present Settlement. Their commutation has been fixed at a lump sum of Rs. 2,913 for the *khálsa* lands, and Rs. 163-8 for the *máfi* lands, calculated at 8 annas per acre on the irrigated area. This is collected by the *tahsíldár* under the name of the canal *chher* cess and paid to the personal deposit account of the Canal Officer.

Rights in water-courses.

All the smaller courses in private lands of course belong to the *zamíndárs* who constructed them or through whose lands they pass. The usual custom is that, if *A* constructs a water-course to his own lands across the lands of *B*, it is recorded as "the property of *B*, in the possession of *A*." *A* does all the clearances and repairs, but *B* takes the *sarkánáh* and trees growing on the banks; should the water-course be disused for any great length of time, *A's* right in it would cease, and he could only restore it with *B's* permission. This was the general arrangement before the Canal Act came into force, but now a man wishing to take a new water-course over another's land generally applies to the Canal Officer to acquire the land or a right of way for him under the Act; sometimes he himself comes to terms with the other man by giving him a share in the water or some other advantage. Where private water-courses cross the Government waste, the land remains the property of Government, which takes the trees and *sarkánáh* growing on the banks in lieu of rent.

In the main canals.

The main channels of the canals were, as a general rule, recorded at the Regular Settlement as the property of the villages through which they passed. At the present Settlement orders were issued that the "lands so occupied should, except (*a*), when the canal "was made before the village, (*b*), when compensation has been paid "for it, be recorded as at the previous Settlement *viz.*, in most instances "as the property of the villages," Government right of occupancy being secured by entering the land occupied by the canal as *makbúza sarkár*, and by stating in the *wájib-ul-arz* that Government has a right of occupancy as long as the canal is in use, and that all trees and other produce on the canal bank belong to Government.

Sirkàri lahrs.

Besides the main canals, a number of main distributaries are known as *sirkári lahrs*, a detail of which is given at pages 148-49 of Mr. Roe's report. The lands occupied by these *lahrs* have been recorded both at the Regular and the present Settlements as the property of the *zamíndárs*, and the clearances have been effected by them through the *chhers* of the villages irrigating from the *lahr* on their own account, after the clearances of the main canals were completed; on the other hand, the Canal Officer has maintained more or less of a supervision over them, and a full control over the trees and *sarkánáh* growing on the banks, and when any has been sold he has credited the proceeds to the Canal Department. At the commencement of the present Settlement the *zamíndárs* claimed this produce; and orders were issued sanctioning the insertion of the following clause in the *wájib-ul-urz* of the villages through which these *lahrs* pass. "Subject to a right of way for the water, the land through which the *lahr* passes is the property of the *zamíndárs*, but the trees and *sarkánáh* growing on its banks are the property of Government. If any cultivator in the village through which the *lahr* passes requires a tree or trees for his *boná fide* agricultural purposes, he shall apply to Canal Officer, and the Canal Officer will give him a suitable tree free of cost." These orders gave very general satisfaction, and were accepted as a complete Settlement of all claims.

Statistics of canal irrigation and revenue.

The following tables show the total income and expenditure and irrigated areas for each canal for the past five years, and the area irrigated by and revenue derived from each canal as they stood at the recent Settlement :—

Statement of income for five years, from 1878-79 *to* 1882-83.

Year.	Share of land revenue.	Miscellaneous income.	Water-rates.	Grand Total.	Remarks.
	Rs.	Rs.	Rs.	Rs.	
1878-79 ...	2,16,340	6,036	681	2,23,057	
1879-80 ...	2,55,777	7,393	1	2,63,171	
1880-81 ...	*a* 5,64,707	6,383	80	5,71,170	*a.* Includes a credit of Rs. 2,55,020 afforded during 1880-81 on account of arrears of land revenue from *jàgirdàri* lands.
1881-82 ...	3,07,837	15,483	143	3,23,463	
1882-83 ...	3,14,658	7,845	173	3,22,676	
Total ...	16,59,319	43,140	1,078	17,03,537	

Chapter V, B.

Land and Land Revenue.

Statistics of canal irrigation and revenue.

Statement of expenditure for five years, from 1878-79 to 1882-83.

Year.	Expenditure.		Labour in lieu of water-rates.		Grand Total.
	Imperial.	*Zar-i-nagha.*	*Chhers* present and remitted to *panchayats.*	Value at six annas per *chher.*	
	Rs.	Rs.	No.	Rs.	Rs.
1878-79	71,540	44,393	487,518	1,82,819	2,98,752
1879-80	75,491	50,071	461,092	1,72,910	2,98,472
1880-81	1,12,828	74,972	477,710	1,79,141	3,66,941
1881-82	82,417	64,625	418,266	1,56,850	3,03,892
1882-83	1,10,304	1,14,716	452,005	1,69,502	3,94,522
Total ...	4,52,580	3,48,777	2,296,591	8,61,222	16,62,579

Statement showing areas irrigated for five years, from 1878-79 to 1882-83.

Canals.	Years.				
	1878-79	1879-80	1880-81	1881-82	1882-83
Sutlej Sub-division.					
Diwánwáh, Mailsi	22,919	23,012	28,009	36,590	38,563
Jámwáh Khurd	16,342	14,955	17,994	20,226	19,482
Chattarwáh	5,053	4,623	3,359	3,529	2,713
Jámwáh Kalán...	15,454	10,097	10,162	13,584	11,222
Kábilwáh	8,002	5,332	5,929	8,717	6,288
Sadikwáh	1,682	1,241	970	1,717	1,064
Bháwalwáh, Mailsi	19,390	16,168	17,818	19,751	16,140
Sultánwáh	13,751	11,312	11,940	15,431	14,712
Abbonwáh	4,784	3,994	4,249	3,576	3,309
Jamrániwáh	3,894	2,787	3,598	3,563	3,643
Muhammadwáh	13,077	2,923	3,032	12,752	14,406
Díwánwáh, Lodhrán	...	6,472	...	...	...
Sirdárwáh	14,603	13,642	17,846	18,641	21,012
Bháwálwáh, Lodhrán	9,314	7,952	11,213	8,854	9,579
Shukwáh, Sharkia	5,069	4,261	6,826	5,020	5,862
Mubárikwáh	5,903	5,374	8,182	7,181	7,532
Khánwáh	3,547	2,719	4,747	4,587	4,448
Shukwáh, Garbia	...	...	16	1,257	1,499
Háfizwáh	3,336	3,651	1,281	3,136	2,474
Bahádurwáh	838	785	76	268	351
Mathithal	7,798	6,361	5,061	7,028	10,066
Khadal	5,109	4,276	3,961	5,589	5,321
Táhirpur	5,713	4,783	4,737	4,896	5,179
Dourána Lungána	12,418	9,753	7,725	10,946	12,961
Sháhpur	7,858	5,941	7,511	7,840	8,552
Wali Muhammad	40,174	26,466	33,655	42,007	43,616
Sikandrábád	40,091	29,990	35,655	37,231	41,934
Ghujjúhatta	15,141	13,142	16,170	15,661	19,469
Bakhtowáh	17,628	15,872	17,955	16,618	21,737
Dhundí	5,261	3,461	3,615	3,169	2,723
Panjání	1,268	757	1,206	1,027	1,327
Sikandarwáh	4,879	4,286	3,555	4,591	4,000
Billochánwála	1,342	1,652	1,231	1,300	1,731
Total ...	331,618	268,040	299,284	346,277	362,976

Chapter V, B.

Land and Land Revenue.

Statistics of canal irrigation and revenue.

Canal jama and area irrigated by the canals in the Mooltán district.

Serial No.	Name of canal.	Total area of holding irrigating.	Total cultivated area.	Details of irrigated area. Canal and well.	Canal alone. Flow.	Canal alone. Lift.	Total canal area.	New *Jama*. (Canal remissible).	New *Jama*. Non-canal.	New *Jama*. Total.	Canal *jama* to be credited in accounts.	Regular Settlement *Jama*. Canal.	Regular Settlement *Jama*. Non-canal.	Regular Settlement *Jama*. Total.
	I.—CHENAB CANALS, TAHSIL MOOLTAN.													
1	Mattitál alone ...	5,344	1,550	750	230	...	980	471	996	1,467	602	145	958	1,103
2	Khádal ...	8,007	2,582	1,124	52	24	1,200	699	2,317	3,016	1,048	275	1,653	1,928
3	Mattitál and Khádal ...	9,951	2,669	1,881	140	14	2,035	1,335	2,148	3,483	2,228	625	1,920	2,545
4	Táhirpur ...	4,251	2,332	1,445	103	43	1,590	1,295	1,811	3,106	1,744	550	1,725	2,275
5	Khádal and Táhirpur ...	4,810	1,893	1,548	240	...	1,788	1,125	875	2,000	1,550	215	1,215	1,430
6	Dauráná Langáná ...	39,428	8,373	5,238	846	196	6,280	3,806	6,220	10,026	5,507	1,330	5,020	6,350
7	Dauráná Langáná and Táhirpur ...	2,616	1,047	724	17	...	741	675	675	1,350	906	275	770	1,045
8	Khádal and Dauráná Langáná ...	2,690	1,115	1,072	43	...	1,115	550	504	1,054	704	350	579	929
9	Khádal, Táhirpur and Dauráná Langáná ...	1,649	628	597	17	...	614	430	440	870	584	50	870	920
10	Sháhpur ...	4,083	2,174	958	109	...	1,067	945	1,762	2,707	1,117	525	1,346	1,871
11	Sháhpur and Dauráná Langáná ...	2,144	912	898	5	...	903	575	575	1,150	766	200	565	765
12	Walí Muhammad ...	79,234	25,629	21,879	2,590	68	24,537	23,288	16,240	39,528	24,378	6,255	20,941	27,196
13	Walí Muhammad and Dauráná Langáná ...	15,444	5,559	3,500	1,750	63	5,313	4,475	3,043	7,518	5,109	1,350	2,911	4,261
14	Walí Muhammad and Sháhpur ...	5,882	4,203	3,824	277	...	4,101	3,400	3,100	6,500	4,460	730	3,763	4,493
15	Dauráná Langáná, Walí Muhammad and Sháhpur ...	13,827	6,231	4,827	370	157	5,354	5,300	5,627	10,927	6,692	2,475	5,870	8,345

Canal jama and area irrigated by the canals in the Mooltán district—(Continued).

Serial No.	Name of canal.	Total area of holdings irrigating.	Total cultivated area.	Details of Irrigated Area. Canal and well.	Canal alone. Flow.	Canal alone. Lift.	Total canal area.	New *Jama*. Canal (remissible).	New *Jama*. Non-canal.	New *Jama*. Total.	Canal *jama* to be credited in accounts.	Regular Settlement *Jama*. Canal.	Regular Settlement *Jama*. Non-canal.	Regular Settlement *Jama*. Total.
	I.—CHENAB CANALS, TAHSIL MOOLTAN—*Continued*.													
16	Táhirpur, Dauráná Langáná and Walí Muhammad ...	2,780	1,661	476	286	40	802	600	1,313	1,913	859	175	1,125	1,300
17	Sikandarábád ...	45,921	20,897	11,929	1,331	37	13,297	11,360	17,465	28,825	13,725	6,085	14,609	20,694
18	Sikandarábád and Walí Muhammad ...	14,949	9,317	8,092	660	113	8,865	10,077	5,194	15,271	9,915	7,330	5,864	13,194
19	Bakhtúwáh ...	971	407	...	...	15	15	...	439	439	...	...	115	115
20	Sikandarábád and Diwáñwah, Lodhrán ...	1,510	391	84	...	...	84	30	245	275	67	...	200	200
	Total Tahsíl Mooltán...	265,498	99,570	70,846	9,066	769	80,681	70,436	70,989	141,425	81,758	28,940	72,019	100,959
	I.—CHENAB CANALS, TAHSIL SHUJABAD.													
1	Walí Muhammad Khán	1,946	1,213	970	220	22	1,212	1,209	763	1,972	1,351	10,600	7,222	17,822
2	Sikandarábád ...	43,602	16,991	14,514	1,763	73	16,350	19,158	9,191	28,349	19,288	14,065	7,256	21,321
3	Gajjú Hattá ...	36,385	13,646	12,122	797	80	12,999	15,775	7,978	23,753	15,913	26,681	13,051	39,732
4	Bakhtúwáh ...	27,973	15,180	14,266	736	151	15,153	31,007	16,230	47,237	29,913	23,570	10,448	34,018
5	Dhúndún ...	12,483	5,995	4,867	680	91	5,638	8,270	3,999	12,269	8,515	...	...	...
6	Panjání ...	4,500	1,816	1,430	192	64	1,686	1,381	3,093	4,474	1,644	550	1,700	2,250
7	Sikandarwáh ...	1,093	537	407	58	59	524	600	1,850	2,450	1,564	225	1,513	1,738
	Total Tahsíl Shujábád	127,982	55,378	48,576	4,446	540	53,562	77,400	43,104	120,504	78,188	75,691	41,190	116,881
	„ „ Mooltán	265,498	99,570	70,846	9,066	769	80,681	70,436	70,989	141,425	81,758	28,940	72,019	100,959
	Total Chenáb canals...	393,480	154,948	119,422	13,512	1,309	134,243	147,836	114,093	261,929	159,946	104,631	113,209	217,840

Chapter V, B.

Land and Land Revenue.

Statistics of canal irrigation and revenue.

II.—SUTLEJ CANALS, TAHSIL LODHRAN.

No.	Village													
1	Muhammadwah ...	40,146	8,298	6,597	1,560	70	8,227	5,324	3,834	9,158	4,187	7,450	5,773	13,224
2	Sardarwáh ...	94,956	27,056	22,216	4,523	167	26,906	20,459	12,505	32,964	15,708	18,600	9,568	28,168
3	Sheikhwah Sharkia ...	17,157	6,229	5,431	605	114	6,150	5,058	3,431	8,489	3,732	4,175	3,119	7,294
4	Bahawalwah ...	27,323	10,307	9,447	590	120	10,163	8,678	5,061	13,739	6,135	7,722	6,991	14,713
5	Mubárikwáh ...	20,826	6,053	5,358	333	136	5,827	4,112	3,327	7,439	2,956	2,675	3,395	6,070
6	Khánwáh ...	12,106	3,809	3,191	195	28	3,414	2,101	3,191	5,292	1,565	1,830	3,448	5,278
7	Sheikhwáh ...	4,130	1,265	1,172	73	13	1,258	445	1,322	1,767	376	50	375	425
8	Hafizwah ...	9,424	4,266	2,670	1,555	131	4,356	2,978	2,790	5,768	2,613	900	6,285	7,185
9	Bilochánwálá ...	2,479	1,545	346	1,089	18	1,453	1,613	346	1,959	1,439	1,700	7,710	9,410
10	Sikandarwálá ...	7,598	4,833	2,435	2,195	35	4,665	4,341	2,545	6,886	3,816	2,475	1,815	4,290
11	Gajju Hattá ...	215	8	...	...	...	...	44	41	85	30	...	...	...
12	Bakhtúwáh ...	1,487	195	153	8	...	161	103	173	276	70	...	...	...
13	Panjáni ...	718	372	337	4	14	355	62	225	287	43	...	...	...
	Total Tahsíl Lodhrán canals ...	2,38,565	74,236	59,353	12,730	852	72,935	55,318	38,791	94,109	42,670	47,577	48,479	96,056

II.—SUTLEJ CANALS, THASIL MAILSI.

No.	Village													
1	Diwánwáh ...	1,17,822	26,047	10,280	7,953	4,737	22,970	15,415	10,382	25,797	22,393	8,755	9,414	18,169
2	Jámwáh Khurd ...	68,053	17,385	903	3,445	1,957	6,305	10,055	7,114	17,169	14,742	4,795	4,654	9,449
3	Chattarwáh ...	19,091	2,895	2,436	253	55	2,744	1,739	1,819	3,558	2,971	1,470	1,455	2,925
4	Jámwáh Kalán ...	6,132	12,784	10,709	1,397	375	12,481	8,690	6,680	15,370	13,152	5,695	6,065	11,760
5	Baháwalwáh ...	46,376	18,260	15,754	2,119	176	18,049	12,162	8,339	20,501	17,825	11,975	10,849	22,824
6	Kábilwáh ...	42,933	10,353	8,410	1,030	159	9,599	6,682	5,592	12,274	10,415	3,100	2,165	5,265
7	Sultánwáh ...	43,226	14,441	11,561	1,928	126	13,615	9,105	7,759	16,864	14,363	5,770	4,844	10,614
8	Abbanwáh ...	7,334	4,355	3,617	661	51	4,329	2,386	2,295	4,681	3,515	1,275	1,825	3,100
9	Jamrániwáh ...	9,516	3,136	2,653	330	137	3,120	1,813	1,874	3,687	3,062	875	1,450	2,325
10	Muhammadwáh ...	21,547	4,177	3,490	382	98	3,970	2,571	2,893	5,464	4,597	1,450	2,025	3,425
11	Sardárwáh ...	3,735	1,812	750	745	108	1,603	837	776	1,613	1,354	75	600	675
	Total Tahsíl Mailsi ...	4,39,765	1,15,645	70,565	20,243	7,979	98,785	71,455	55,523	1,26,978	1,08,389	45,185	45,346	90,531
	Do. Lodhran ...	2,38,565	74,236	59,353	12,730	852	72,935	55,318	38,791	94,109	42,670	47,577	48,479	96,056
	Total Sutlej ...	6,78,330	1,89,881	1,29,916	32,973	8,831	1,71,720	1,26,773	94,314	2,21,087	1,51,059	92,762	93,825	1,86,587
	Total Chenáb ...	3,93,480	1,54,948	1,19,422	13,512	1,309	1,34,243	1,47,836	1,14,093	2,61,929	1,59,946	1,04,631	1,13,209	2,17,840
	Grand Total for district	10,71,810	3,44,829	2,49,338	46,485	10,140	3,05,963	2,74,609	2,08,407	4,83,016	3,11,905	1,97,393	2,07,034	4,04,127

In column twelve is entered the total canal *jama* of the whole village, without working it out for the holdings in detail. Thus in the Wali Muhammad the four villages which irrigate from it irrigate from other canals also. But their total canal *jama* is shown under the Wali Muhammad. The *tahsil* totals are correct, but the details are misleading.

Chapter V, B.

Land and Land Revenue.

Government lands, forests, &c.

Table No. XVII shows the area and income of Government estates; while Table No. XIX shows the area of land acquired by Government for public purposes. The forests have already been noticed at pages 100 to 103.

Darkhwásti lands.

The name *darkhwásti* is used to designate the grants or lease of Government waste, which have been made under the rules for the time being in force. These grants were originally made under the Board of Administration's Circular No. 40 of 1850, and down to 1868 the grantees were always regarded as full proprietors, being so recorded at the Regular Settlement in grants made before that date, and selling and buying their lands without restriction. But on the issue of the Financial Commissioner's Book Circular No. XII of 1868, the local authorities fell into two mistakes regarding it: 1st, they considered that it was to be given retrospective effect, and treated as denying proprietary rights to the holder of existing grants; 2ndly, they held that as the Settlement was made for 10 years in 1858, the term of Settlement expired in 1868, and that consequently an additional *málikáná* could be imposed. Orders were therefore issued that in all these grants Government was to be recorded as proprietor, and that an enhancement of 50 per cent. on the revenue was to be taken under the name of *málikáná*. Persons not liking these terms were to surrender their grants. Many did so, and the *jama* of the grants thus surrendered was nearly Rs. 6,000, but in 1873 these men began to sue Government for proprietary rights. In one or two cases referred in the usual way, Government had to confess judgment, and this led to a general enquiry, and to the orders of Government sanctioning the recommendations which were the result of the enquiry. These orders were :—

I.—That where any special agreement had been made fixing the terms of the grant, this should be followed.

II.—That in all other cases, grantees who obtained their grants before the Financial Commissioner's Circular of 1868, should be recognized as full proprietors.

III.—That the *málikáná* imposed in 1868 should be remitted, and the *jama* reduced to the former amount.

IV.—That the grantees who resigned their holdings in consequence of the orders of 1868, should be allowed to resume them on giving a petition on plain paper before 30th June 1875.

These orders gave very great satisfaction, and under them by far the greater number of those who had resigned have resumed their grants.

Timber in *darkhwásti* lands.

The rights to trees in these grants formed the subject of separate orders. At first no special orders had been passed about timber, the lessees had cut it without restriction. But on 5th January, 1865, the Deputy Commissioner issued an order that on all new applications the *tahsíldárs* were to report whether there were timber or not, and if there were, the lessees were not to cut it until they had paid the price fixed. The orders of the Financial Commissioner were—

I.—That in all grants made before the date of the Deputy Commissioner's order *viz.*, 5th January, 1865, the Government claim to timber should be withdrawn absolutely.

II.—That in grants made between that date and the issue of the Financial Commissioner's Circular XII of 1868, the price of the timber should be realised unless insignificant in amount.

III.—That in the grant made after 1868 the terms of the lease should be adhered to.

Grants after 1868.

In the case of the grants made under Book Circular XII of 1868, most of the leases were for the term of the then current Settlement, and on its expiration it became necessary either to allow the lessees to purchase the proprietary right or to fix a *málikáná*. It was arranged at the revision of Settlement that for the land revenue of the new Settlement the old *darkhwásti* rates, *viz.*, Rs. 14 a year for a grant of 30 acres of non-canal land, and Re. 1 per acre (which includes the non-canal *jama*) for canal lands, should be adopted, and that the lessees accepting the new assessment should be allowed to purchase the proprietary right in their grants on payment of Re. 1 per acre. If any lessee was unwilling to purchase in this manner, he might still have his lease renewed for the Settlement at the above rates, the assessments by which would constitute the whole demand in him, and would be sub-divided into land revenue and *málikáná*. The whole of the lessees affected by these proposals elected to purchase the proprietary right, and paid the purchase money.

Applications for new grants.

Regarding applications for new grants, Mr. Roe suggested that no applications should be granted unless at least one-third of the land of the applicant's own village was under cultivation. He wrote:—

"I would not insist on my suggestion absolutely in all cases; there may be special reasons why the applicant cannot bring his own village under cultivation; but I think that it should be acted on as a general rule. I have no wish to prevent the smaller men from acquiring independent holdings, or to make grants in waste lands the monopoly of the rich. But very often these applications come from well-to-do *lambardárs*, whose capital had much better be expended at home, or from small *zamíndárs*, either proprietors or tenants, who, on a slight quarrel with their neighbours, attempt to set up a well of their own on borrowed capital. The tie which binds a village community together in this district is generally a very slight one, and I do not think we should do anything to weaken it."

Forests. General condition.

As frequently explained, under Sikh rule the proprietary rights of individuals were fully recognized only in lands in their actual cultivation or occupation, all unoccupied waste being considered the property of Government. This view prevailed more or less throughout both the Summary Settlements down to the Revenue Survey, which took place just before the Regular Settlement. The boundaries of the villages were then demarcated for the first time, and shown in the Survey maps. They were afterwards revised by the Settlement officer, and excess waste was in many cases excluded. The boundaries thus fixed, except when altered by special orders, have remained unchanged ever since, and all land outside them has been considered the property of Government. At the revision of Settlement it was therefore unnecessary to undertake any general demarcation of Government lands, but as these had previously been under the district officer, and they were then to be transferred to the Forest Department, it became necessary to determine what portion should be subject to special conservancy. At the Regular Settlement *rakhs* had

Chapter V, B.

Land and Land Revenue.

Forests. General condition.

been formed, which had ever since been held under the special management of the Department. It was necessary to revise these, and to consider whether any further land should be formed into preserves. The Forest Officer accordingly proceeded to select those tracts which he wished to put under special conservancy. In Shujábád there was no Government waste, and no preserves were proposed in Mooltán. In Sarai Sidhu the *rakhs* finally selected as reserves were :—

Rakh.	*Estimated area.*
I.—Vinoi	... 9,209 acres.
II.—Makhdúmpúr (old Makhdúmpúr west)	... 6,644 „
III.—Akil (old Makhdúmpúr east) ...	... 6,936 „
IV.—Dángrá	... 4,389 „
V.—Bhurá Kotiá	... 4,511 „
VI.—Pakká Hají Majíd	... 2,059 „
Total ...	... 33,748 acres.

In Lodhrán the following were declared reserved forests :—

	Area.
I.—Shujáatpúr	... 1,016 acres.
II.—Obáorah	... 656 „
III.—Kot Malik	... 545 „
IV.—Nauréja Bhuttah	... Not given.
V.—Khánwáh	... Not given.
VI.—Lodhrán	... Not given.

In Mailsi the following are the reserved forests :—

	Estimated area.	
I.—Sharaí	... 5,080 acres.	
II.—Tajwánáh	... 1,940 „	
III.—Chak Kaurá	... 1,549 „	
IV.—Cháolí Masháik	... 10,297 acres.	Known as the Sáhúke forests.
V.—Jhaggá Nausherá	... 8,200 „	Known as the Sáhúke forests.
VI.—Sáhúke ...	... 1,710 „	Known as the Sáhúke forests.
Total	... 28,776 acres.	

Tirni ; former rates.

Tirni is the tax levied on camels and cattle grazing in the Government *bàr*. The original rules on the subject were framed by Colonel Hamilton in 1860, the provisions of which were as follows :—

i.—The *bàr* was to be divided into *patwàris'* circles, which were to be grouped into sub-divisions for *tirni gùzàrs* and divisions for *sadar tirni gùzàrs*. The *patwàris* received 2 per cent. and the *sadar tirni gùzàrs* 10 per cent. on the collections, of which, however, half went to the *tirni gùzàrs* or *lambardàrs* when the collections were made through them.

ii.—The rates per head were to be—

	Rs.	A.	P.
Camels after the 3rd year, male ...	1	0	0
Do. do. female ...	0	8	0
Milch-buffaloes, after 3rd year ...	0	10	0
Do. cows ditto ...	0	4	0
Sheep and goats ...	0	0	6

A single payment freed for the whole division.

iii.—All cattle not employed in traffic found in the *bàr* were presumed to be grazing there; and cattle found grazing without having paid were liable to special penalties, and a single head of cattle thus found rendered the whole cattle of the village laible to *tirni*.

iv.—Rules were added fixing the dates of payment, giving the *tirni gùzàrs* and the *sadar tirni gùzàrs* certain summary

Chapter V, B.

Land and Land Revenue.

Tirni; former rates.

powers of collection, and providing penalties for breaches of the rules by them or the *patwàrìs*.

v.—If the headmen declined to engage, the lease was to be farmed by auction. If they engaged, it was to be an annual one from 1st April, but it might be extended for a term of years with the sanction of the Financial Commissioner.

Their practical working.

These rules were, however, never completely in force. The partition of the district into *patwàrìs*' circles sank down into the appointment of two *tirni moharrirs* for each *tahsìl*; no *sadar tirni gùzàrs* were created. The *tirni gùzàrs* were the ordinary village *lambardàrs*; but headmen were appointed separately for the *thoks* and *rahnàs*. Lists were given in annually; they were not, however, accepted absolutely by the Deputy Commissioner, but a *tirni* assessment nearly equivalent to them, and mainly based on them, was made with each village separately, and an engagement taken from the *lambardàr* as *tirni gùzàrs*. The leases were never formally extended for a term of years, but practically little change was made in them. In the Mooltán district the *tirni* was thus virtually a village assessment, but nominally it was based on enumeration, and it would appear to have been really so in the other districts of the Division.

Present system.

In 1870 an attempt was made to introduce the *chak* system, and some other changes, but practically the only result was an enhancement of the rates, which were fixed as follows:—

	R.	A.	P.		R.	A.	P.
Camels, male ...	1	0	0	Oxen ...	0	2	0
Do. female ...	1	8	0	Cows ...	0	6	0
Buffaloes, male ...	0	4	0	Horses and ponies ...	0	8	0
Do. female ...	0	12	0	Sheep and goats ...	0	1	0

But, as before, these rates were to a certain extent only nominal; that is to say, the *lambardàrs* were allowed to engage on the old system at an advance of 25 per cent. But the Deputy Commissioner exercised a further discretion in refusing tenders which appeared to him inadequate, and the result is that the average collection under the new rules has been 54 per cent. above that of the old ones; and as the *lambardàrs* were now in theory contractors, their old allowance of 5 per cent. was stopped. With these exceptions the system actually introduced under Colonel Hamilton's rules has remained unaltered down to the present. In actual practice nothing is taken on male buffaloes, oxen, horses or ponies.

Bàr bàràni lands.

Besides the regular villages included in the assessment circles there are the *bàr baràni* lands. These lands consist of the plots shown in the survey maps as Government waste. Here and there *darkhwàsti* grants have been made on the general rules, and one or two new villages have been formed, but outside these there is merely a barren waste, the property of Government, which will be quite useless until water can be brought to it. Scattered over this *bàr* are numerous hollows, or *dhoràhs*, and a circle of *dhoràhs* forms a *rahnàh*. In good years the drainage of the rain in the *bàr* collects in the hollows, and produces excellent crops. It is this cultivation which is especially the *bàr baràni kàsht*. Near the river the *sailàb* occasionally overflows into the Government waste, and this too is sometimes classed as *bàr baràni*, but its proper name is *ittifàqià*.

Chapter V, B.

Land and Land Revenue.

Bàr bàràni lands.

These *dhoràhs* are cultivated almost entirely by the nomads of the *bàr*, chiefly Langriáls. Many of them have held their lands from Sikh times, and it is very desirable from a political point of view that they should be induced to settle down quietly to agriculture. No record of rights has hitherto been drawn up, and the matter is now under the consideration of Government. The Settlement Officer has recommended that, whilst all claims to dues over a large tract should be disallowed, all men who held their land before the Regular Settlement should be recognised as full proprietors of their holdings. It would obviously have been impossible to assess these lands in detail with a fixed cash *jama*.

CHAPTER VI.

TOWNS, MUNICIPALITIES, & CANTONMENTS.

Chapter VI.

Towns, Municipalities, and Cantonments.

General statistics of towns.

At the Census of 1881, all places possessing more than 5,000 inhabitants, all municipalities, and all head-quarters of districts and military posts, were classed as towns. Under this rule the following places were returned as the towns of the Mooltán district :—

Tahsil.	Town.	Persons.	Males.	Females.
Mooltán ...	Mooltán ...	68,674	38,988	29,686
Shújábád ...	Shújábád ...	6,458	3,420	3,038
Lodhrán ...	Jalálpur ...	3,875	1,965	1,910
Mailsi ...	Kahror ...	4,804	2,532	2,272
	Dunyapur ...	2,041	935	1,106
Sarai Sidhú ...	Talamba ...	2,231	1,214	1,017

The distribution by religion of the population of these towns and the number of houses in each are shown in Table No. XLIII, while further particulars will be found in the Census Report in Table No. XIX and its appendix and Table No. XX. The remainder of this chapter consists of a detailed description of each town, with a brief notice of its history, the increase and decrease of its population, its commerce, manufactures, municipal government, institutions, and public buildings ; and statistics of births and deaths, trade and manufactures, wherever figures are available.

Mooltán city. Description.

Mooltán city lies in latitude 30° 12′ north, and longitude 71° 30′ 45″ east, and, with its suburbs, contains a population of 68,674 souls. It is built on a mound formed by the accumlated débris of ages at a distance of four miles from the left bank of the Chenáb. The city itself is surrounded on three sides by a wall from ten to twenty feet high. Its northern side is open, and looks as if it had been built on the bank of a river, thus confirming history, which says that the Rávi flowed past Mooltán on its northern side dividing it from the fort. This it did probably as late as Taimúr's time (see Chapter II). The original site consisted of two low islands raised only some 8 to 10 feet above the level of the river, as has been proved by excavation ; but later accumulations have raised them to a height of some 50 feet from which the present city and citadel look down upon the surrounding country. The city has six gates, which are placed in the following order :—The Lohari gate at its north-western corner ; the Bohir gate at its south-western corner. Next to the Bohir gate on the south side comes the Haram gate, then the Pák gate. On the eastern side is the Delhi gate, and at the north-eastern corner is the Daulat gate. On the northern side is a wide approach to the city, rising from the old bed of the Rávi. This approach is called the Husain Gahí. From the Husain Gahí entrance a wide paved street runs for about half a mile in a southerly direction into the heart of the city. This is known as the *chauk ;* at two-thirds of its length from the Husain Gahí it sends out a broad street to the Delhi gate on the east, and another to the Lohari on the west. The *chauk* ends at the mosque of Wali Muhammad, at which point three broad streets branch off to

Chapter VI.

Towns, Municipalities, and Cantonments.

Mooltán city. Description.

the Bohir, Haram and Pák gates respectively. The other streets are narrow and tortuous, often ending in *culs de sac*. On all sides of the city are large irregular suburbs, containing almost as large a population as the city itself. The chief of these are Kiri Afghánán, Naván Shahar, Kiri Drakhánán, Kotla Tola Khán. (For statistics of population of suburbs, see below). On the north side of the city, and separated from it by the low ground in which once the Rávi flowed, is the fort of Mooltán which was dismantled in 1854. It is described by General Cunningham's Ancient Geography of India, Volume I, 230, and Archæological Reports, Volume V, 124, *et seq.* (see below). It is at present occupied by a Company of the European Regiment and half a Company of the Native Regiment in cantonments; and in it stands the magazine obelisk erected to the memory of Mr. Vans Agnew and Lieutenant Anderson, beneath which their remains were placed after the siege, and also the Pahládpur or Narsinghpuri temple, the heightening of which formed one of the pretexts for the riots between the Hindus and Muhammadans, which occurred on 20th September 1881.

General Cunningham describes the fort as "an irregular semi-"circle, with a diameter, or straight side, of 2,500 feet, facing the "north-west, and a curved front of 4,100 feet towards the city, making "a circuit of 6,600 feet, or just one mile and a quarter. It had 46 "towers or bastions, including the two flanking towers at each of the "four gates." "The walled city," General Cunningham continues, "which envelopes the citadel for more than two-thirds of the curve, is "4,200 feet in length and 2,400 feet in breadth, with the long straight "side facing south-west. Altogether, the walled circuit of Mooltán, "including both city and citadel, is 15,000 feet, or very nearly 3 miles, "and the whole circuit of the place, including its suburbs, is 4½ "miles.* . . . . The fortress had no ditch when seen by Elphin-"stone and Burnes, as it was originally surrounded by the waters of the "Rávi. But shortly after Burnes' visit, a ditch was added by Sáwan "Mal, the energetic governor of Ranjít Singh. The walls are said to "have been built by Murád Bakhsh, the youngest son of Sháh Jahán; "but when I dismantled the defences of Mooltán in 1854 I found that "the walls were generally double, the outer wall being about 4 feet "thick, and the inner wall 3½ feet to 4 feet.† I conclude, therefore, that "only the outer wall or facing was the work of Murád Bakhsh. The "whole was built of burnt bricks and mud, excepting the outer courses, "which were laid in lime mortar to a depth of 9 inches."‡ The citadel includes the celebrated shrines of Baha-ud-dín and his grandson Rukn-ul-álam.

The buildings and places of Muhammadan antiquarian interest in and about the city and fort are fully described by General Cunningham. About a mile north of the north-western corner of the fort stands the Idgah, a fine building 240 feet long by 54 broad. At each end in front

* Hwen Thsang (as to whom, see *ante*, Cap. II) gives the circuit as 30 *li*, or just 5 miles.

† General Cunningham adds in a foot note that on dismantling the wall near the *Sikhi Darwáza*, or "Spiked Gate," he found the only two shots that were fired from the great one hundred-pounder gun which the Bhangi *misl* of Sikhs brought against Mooltán in the beginning of the century. The two shots had completely penetrated through the brick wall of 7 feet, and were within three feet of each other.

‡ "Anc. Geog.," I. p. 321–2.

Chapter VI.

Towns, Municipalities, and Cantonments.

Mooltán city. Description.

is a tower. There are seven archways leading to seven domes by side chambers. Over the central archway is a Persian inscription to the effect that the Idgah was bulit by Nawáb Abdul Samad Khán, *anno Hijri* 1148. On the western wall of the central dome is a *tablet* bearing the following inscription :—"Within this dome, on the 9th of April 1848, were cruelly murdered Patrick Vans Agnew, Esquire, Bengal Civil Service, and Lieutenant William Anderson, 2nd Bombay Fusiliers, Assistants to the Resident at Lahore." The Idgáh was first used as the district *katchery*. In 1863 it was restored to the Muhammadan community on their entering into engagements to preserve the tablet to the memory of Messrs. Vans Agnew and Anderson.

The Hindu places of religious and antiquarian interest in and near Mooltán are the following:—The *Mandar Prahládpuri* is situated at the north-east corner of the fort, a few yards from the tomb of Baháwal Hak. It is believed to be erected on the place where in *Satyug* the Narsingh incarnation of Vishnú took place to destroy Hiranya Kasipa, king of Mooltán, who was a disbeliever in the divinity of Vishnú, while his son Prahlád was a devout worshipper of that god. (See General Cunningham's Archæological Survey, Volume V, page 129). The *Mandar Narsinghpuri* is in the Sabz Mandi. The *Rám Tírath tank* is on the east of the Baháwalpur road, about half a mile from the Daulat gate of the city. It celebrates the place where the Narsingh incarnation called Rámchandar washed his hands after having killed Hiranya Kasipa. It is believed that the *déotas* bathe in it every *purab*. *Dwára Banársi Bhagat*, in the Haram gate *bázár*. Three hundred years ago a Bhagat by name Banársi came to Mooltán from Gírot. The *maháj ans* of Mooltán built this *mandar* to him. The following disciples of the Bhagat in order occupied the *mandar* :—Báwa Séj Rám, Báwa Mansa Rám, Báwa Rám Dás, Báwa Kesho Dás, Báwa Sundar Dás, the present incumbent. *Sáwan Mal's Shivála* is on the east bank of the Walí Muhammad canal, on the left of the road leading from the Bohir gate to cantonments. It was built by Diwán Sáwan Mal in 1837 for Rs. 12,000. There is a fair here every Sunday afternoon while the canal is running. *Jog Máyá Mandar* is situated a short distance to the south of the city outside the Haram gate, on the east of the Shújábád road. It was restored by Diwán Sáwan Mal. A fair, lasting 10 days, takes place here in Assú and Chetr, and Hindus resort to it largely on Friday. A light is kept for ever burning in it both day and night.

On the east of the city, just outside the Daulat gate, is the *Amkhás*, a garden in which stood a building used as an audience-room and garden house by the Hindu Governors of Mooltán. The Mooltán *tahsíl* building now stands here. A small distance to the west and north of the *tahsíl* is the cenotaph of Diwán Sáwan Mal, the European cemetery, which was first used, and the encamping-ground. At about two miles south of the city, on the east and west sides of the road to Baháwalpur, are two graveyards, in which are buried the officers and men killed at the siege of Mooltán in 1848-49. On the east side of the same road, two-and-a-half miles from the Daulat gate of the city, stands the Mooltán Central Jail. Immediately to the west of the city and between the Lohari and Bohir gates is a fine public garden known as Lange Khan's or the civil lines garden. It contains

Chapter VI.

Towns, Municipalities, and Cantonments.

Mooltán city. Description.

a municipal hall and a building containing the remains of an old library. The city railway station of the Sind, Panjáb and Delhi Railway lies half a mile south of the Haram gate, at the point where the road from the Haram gate to Shújábád crosses the railway line. Beginning from the Idgáh on the north and running north and west of the city to the railway, lie the civil lines, which contain the district and divisional courts, the civil lines church, the bungalows of the civil residents, and the Cantonment railway station. The civil lines are intersected by the Walí Muhammad canal, which irrigates them and the neighbourhood of the city and cantonments. West of the civil lines lie the cantonments.

History.

The city of Mooltán has no history apart from the general history of the Mooltán province given in Chapter II. The great temple of the Sun there mentioned stood in the very middle of the citadel, but it was destroyed during the reign of Aurangzeb, who built a Jama Masjid in its place, which formed the powder magazine of the Sikhs, and was blown up during the siege of 1849. About two-and-a-half miles east of Mooltán, on the old bank of the Rávi, is the Márí Sítal, near which is supposed to have stood the ancient fort of Siba or Saka so frequently mentioned in the history of Mooltán.

The Sindh, Panjáb and Delhi Railway was opened to Mooltán in 1865, and the Indus Valley State Railway from Mooltán to Kotrí in 1878, thus affording, with the section of the Sindh, Panjáb and Delhi Railway from Kotrí to Karáchí, railway connection with the seaboard. On 20th September 1881, a riot took place between the Hindus and Muhammadans regarding the sale of beef in the city, and the additions to the Pahládpuri temple. Property estimated at Rs. 50,000 was destroyed. The city was occupied by troops from 20th September to September the 30th, when the police resumed their duties. A punitive police post, costing Rs. 8,500, was imposed upon the city for one year. Besides the public institutions already mentioned, there is a branch of the Arya Samaj in the city, which numbers about 100 members. There is an English Club in cantonments, and a Masonic Lodge. A clock-tower, combined with a municipal hall and police station, is being built at the Lohari gate of the city.

Taxation. Trade.

The municipality of Mooltán was first constituted in 1867. It is now a municipality of the first class. The Municipal Committee consists of twenty-four elected members, who choose their own chairman from among their numbers. Table No. XLV shows the income of the municipality for the last few years. It is chiefly derived from octroi. Raw silk, madder, cotton, indigo, are excluded from taxation. As a trade centre, Mooltán is a place of the first importance, for, being connected by rail with Lahore, and by water with the whole of the central Panjáb—the valleys of the Rávi, Jhelum and Chenáb—it collects into a focus the greater part of the trade of a large portion of the province with Karáchí, and through Karáchí with Europe. Steamers belonging to the Sindh, Panjáb and Delhi Railway Company used to ply between Karáchi and Sher Sháh, the port of Mooltán; but the steamer service has ceased since the opening of the Indus Valley State Railway. The merchants of Mooltán have firms of correspondents in all the cities of the Panjáb Proper (west of the Sutlej), and in most of the smaller towns having any pretence to w

Chapter VI.

Towns, Municipalities, and Cantonments.

Taxation. Trade.

export trade; and there is probably no large firm at Lahore, Amritsar, Pesháwar, Jullundur, Pind Dádan Khán, or even Delhi and Bhiwáni in the east, which has not its agents at Mooltán. The items of the Mooltán trade comprise every article of produce, manufacture, or consumption in the whole province, the list being headed among the imports with cotton and other piece-goods, and among the exports, with sugar, cotton, indigo, and wool. It is not easy to give an account of the trade of Mooltán without statistics. The following table gives the imports and exports of the chief articles of trade in the municipalitiy of Mooltán for the last three years :—

Articles.	Imports.			Exports.		
	1880-81	1881-82	1882-83	1880-81	1881-82	1882-83
	Maunds.	Maunds.	Maunds.	Maunds.	Maunds.	Maunds.
Raw cotton	17,853	23,891	26,455	14,057	17,926	15,586
European twist and yarn	2,122	2,065	1,872	59	107	73
European piece-goods ...	21,687	17,708	15,607	12,991	14,109	10,976
Indigo	12,248	24,071	15,027	9,480	12,334	11,971
Wheat	255,582	213,695	293,637	13,515	10,880	26,215
Gram and pulse ...	64,560	52,405	86,778	8,375	4,024	4,465
Rice	25,563	29,366	24,365	5,763	6,655	4,068
Ghi	12,400	11,278	15,689	1,060	377	170
Lahori salt	11,389	10,569	11,488	1,363	875	1,113
Seeds, all kinds ...	93,922	107,964	109,255	15,647	14,573	19,197
Silk raw	1,235	847	1,169	416	215	135
Sugar, refined	55,138	57,503	58,918	20,620	20,486	18,754
Sugar, unrefined ...	59,598	94,849	42,781	33,134	43,809	19,483
Indian tea	...	23	46	...	...	...

The figures in the margin show the annual value of imports and exports in rupees. Leaving out of consideration what the city imports for its own use, the function of Mooltán as a trade centre seems to be to collect cotton, wheat, wool, oilseeds, sugar and indigo from the surrounding country, and to export them to the south, to receive fruits, drugs, raw silk snd spices from the Kandahár traders, and to pass them on to the east. The Kábul traders take back indigo, European and country cotton cloth, sugar and shoes. Mooltán receives European piece-goods and European wares generally, and distributes them to the western districts and its own neighbourhood. The following remarks are quoted from the annual report on internal trade of the Panjáb for 1882-83 :—"The future of the trade of Mooltán is difficult to forecast. "On the one hand there appears to be some risk that the construction "of the railway to Sibi will affect its position as a centre of trade "with Afghánistán, while, on the other hand, the increasing trade "with Karáchi must add to the importance of the city as the great "centre of the traffic for the southern Panjáb." The industries of the city have already been described by Mr. Kipling in Chapter IV

Year.	Imports.	Exports.
	Rs.	Rs.
1876-77	64,14,964	37,06,995
1877-78	72,91,642	34,94,916
1878-79	66,34,241	32,19,655
1879-80	75,40,467	36,05,335
1880-81	84,04,104	37,03,382
1881-82	87,14,351	40,01,212

Chapter VI.

Towns, Municipalities, and Cantonments.

Population and vital statistics.

(pages 106-9). The chief local manufactures are silk and cotton-weaving and carpet-making; country shoes are also made in large numbers for exportation beyond the frontier. The glazed pottery and enamels of Mooltán, though not industries on a large scale, have a great reputation.

The population, as ascertained at the enumerations of 1868, 1875 and 1881, is shown below:—

Limits of enumeration.	Year of Census.	Persons.	Males.	Females.
Whole town ...	1868	54,652	31,830	22,822
	1881	68,674	38,988	29,686
Municipal limits ...	1868	45,602		
	1875	50,878		
	1881	57,471		

Town or suburb.	Population.	
	1868.	1881.
Mooltan City ..	27,683	31,878
Awanpura ..	15,702 (Awanpura to Voyleganj, Faridabad, Boch)	3,408
Kiri Daud Khan ..		3,053
Nawan Shahr ..		2,210
Ghas mandi ..		2,113
Kotla Tola Khan ..		1,821
Sutriwat ..		1,672
Aghapura ..		1,505
Gali Imam Din ..		1,202
Nathpura ..		1,200
Kiri Jamandan ..		1,145
Basti Pareran ..		1,058
Banne Loharan ..		781
Sultan Ganj ..		733
Sarai Wazir Khan ..		727
Basti Gujranwali ..		604
Tibbi Sher Khan ..		568
Voyleganj, Faridabad, Boch ..		1,007
Civil Lines ..	11,267	786
Cantonments ..		11,203

It is difficult to ascertain the precise limits within which the enumerations of 1868 and 1875 were taken; but the details in the margin, which give the population of suburbs, throw some light on the matter. The figures for the population within municipal limits, according to the Census of 1868, are taken from the published tables of the Census of 1875; but it was noted at the time that their accuracy was in may cases doubtful. In 1855 the population was returned as 55,999, but this certainly included the agricultural population of the hamlets which lie scattered about the revenue-paying area of the *tarafs* of Mooltán,—a population which in 1868 numbered no less than 8,220 souls. The constitution of the population by religion and the number of occupied houses are shown in Table No. XLIII. Details of sex will be found in Table No. XX of the Census Report of 1881. The annual birth and death-rates per mille of population since 1868 are given in the margin, the basis of calculation being in every case the figures of the most recent Census.

Year.	*Birth-rates.*			*Death-rates.*		
	Persons.	Males.	Females.	Persons.	Males.	Females.
1868 ..	..	..	..	9	9	10
1869 ..	..	..	..	8	6	9
1870 ..	58	55	63	77	75	78
1871 ..	92	88	97	96	92	101
1872 ..	104	53	51	84	70	95
1873 ..	90	49	42	74	78	75
1874 ..	97	50	48	80	73	90
1875 ..	94	49	46	86	82	90
1876 ..	89	46	43	84	81	88
1877 ..	87	43	43	70	70	70
1878 ..	92	48	43	93	92	95
1879 ..	76	39	37	67	68	67
1880 ..	99	51	47	69	68	70
1881 ..	98	52	46	73	74	72
Average ..	93	48	45	78	75	79

Chapter VI.

Towns, Municipalities, and Cantonments.

The actual number of births and deaths registered during the last five years is shown in Table No. XLIV.

Shújábád town.

Shújábád is the head-quarter town of the *tahsíl* of that name, and contains 6,458 inhabitants. It is situated about five miles from the left bank of the Chenáb where the road from Mooltán to Sakhar is intersected by the road from Kahror to Khángarh. The Indus Valley State Railway runs about two miles to the east of the town, and has a station of the same name here, and the town is a centre of considerable local trade. The town is chiefly built of brick, and contains some fine native houses. It is surrounded with a wall, and has four gates, the Mooltáni gate on the north, the Márí Mori gate on the east, the Rashíd Sháh gate on the south, the Chautáka gate on the west. A broad *bázár* runs in a straight line from the Mooltáni to the Rashíd Sháh gate, and is crossed by another straight *bázár* leading from the Márí Mori to the Chautáka gate. The wall was built by Shuja Khán, Nawáb of Mooltán, from A.D. 1767 to A.D. 1772, under Ahmad Sháh Duráni. In the north-west course of the town is the palace of Shújá Khán, a collection of rather fine brick buildings, which are now used as a *tahsíl* and police station; a part of the old palace is now used for the *tahsil* offices. In one of its halls there was a beautiful marble floor which has been removed to the Mooltán Museum, and has sustained some injury in transit. Close to the palace is a dispensary. Outside the Mári Mori gate is the school which is maintained by the Church Missionary Society. On the south and east the town is the *sarái*, encamping-ground, and a canal bungalow. The country around Shújábád is irrigated by the Gajjúhatta and Bakhtúwah canals, and is very well cultivated, fine crops of sugarcane and indigo being grown. The Municipal Committee consists of ten elected members, out of whom a President has been elected. Its income for the last few years is shown in Table No. XLV, and is derived from octroi. The population, as ascertained at the enumerations of 1868, 1875 and 1881, is shown in the margin. The constitution of the population by religion and the number of occupied houses are shown in Table No. XLIII. Details of sex will be found in Table No. XX of the Census Report of 1881.

Limits of enumeration.	Year of Census.	Persons.	Males.	Females.
Whole town ...	1868	6,095	3,180	2,915
	1881	6,458	3,420	3,038
Municipal limits ...	1868	6,095		
	1875	6,280		
	1881	6,458		

Jalálpur town.

Jalálpur, known as Pírwálá, of the saint, is the head-quarters of a police jurisdiction in the Lodhrán *tahsíl*. It is situated twelve miles from the junction of the Sutlej and Chenáb, at the point where the Mooltán and Sakhar road is crossed by the Customs preventive line. It contains 3,875 inhabitants. The town is a collection of native houses built of brick. It contains a *bázár* and Municipal Committee office. The town is liable to inundation from the rivers. It is protected by an embankment which encircles it. Outside the town on the north are the police office, *sarái*, school-house and police rest-house. Within the town is the tomb of Saiyad Sultán Ahmad, surnamed Kátal, the

Chapter VI.

Towns, Municipalities, and Cantonments.

Jalálpur town.

"destroyer," because he commanded some birds which prevented him from sleeping to fall down dead, which they did. His tomb is a fine domed building, covered with blue glazed tiles. The saint to the present day bears a great reputation for casting evil spirits out of possessed persons, many of whom come to the tomb for this purpose in the month of Chetr.

The Municipal Committee consists of eight elected members, out of whom a President has been elected. Its income for the last few years is shown in Table No. XLV, and is derived from octroi. Jalálpur was a place of some trade before the Indus Valley State Railway was made. Its one manufacture is country paper, which is of excellent quality. There is excellent shooting in the Vihári, an old bed of the Beás, which commences south of the town and runs in a tortuous course to the west. The population, as ascertained at the enumerations of 1868, 1875 and 1881, is shown in the margin.

Limits of enumeration.	Year of Census.	Persons.	Males.	Females.
Whole town ...	1868	3,585	1,822	1,763
	1881	3,875	1,965	1,910
Municipal limits ...	1868	3,596		
	1875	3,525		
	1881	3,875		

It is difficult to ascertain the precise limits within which the enumerations of 1868 and 1875 were taken. The figures for the population within municipal limits, according to the Census of 1868, are taken from the published tables of the Census of 1875; but it was noted at the time that their accuracy was in many cases doubtful. The constition of the population by religion and the number of occupied houses are shown in Table No. XLIII. Details of sex will be found in Table No. XX of the Census Report of 1881.

Kahror town.

Kahror is situated on one of the roads leading from Mooltán to Baháwalpur, about eight miles from the right bank of the Sutlej. Immediately to the north of the town is one of the old beds of the Beás known as the Bhatiári *nala*. The town contains 4,804 inhabitants. The town consists chiefly of brick houses, some of which are of a peculiar type, being like ranges of factories without windows. The ground on which the town is built is undulating, which makes the appearance of the town more picturesque than that of most Indian towns. There is a fine broad *bázár* running east and west. Within the town is a branch school-house. The main school lies on the west of the town, as does the police station, dispensary and rest-house. The Municipal Committee consists of 12 elected members, one of whom is elected president. Its income for the last few years is shown in Table No. XLV, and is derived from octroi. Kahror is the commercial centre of the southern half of the district. Kahror is an ancient town; it is mentioned as one of the places taken by Chach after the capture of Mooltán in the 7th century; and a special interest attaches to it by reason of its fame as the scene of the great battle in which Vikramáditya defeated the Saka or Scythian invaders of India in A.D. 79. Abu Rihán describes its position as situated between Mooltán and Loni. The latter place, in General Cunningham's opinion, is most probably intended for Luddan, an ancient town situated near the old bed of

Chapter VI.

Towns, Municipalities, and Cantonments.

Kahror town.

the Sutlej, 44 miles to the east-north-east of Kahror, and 70 miles to the east-south-east of Mooltán. The population, as ascertained at the enumerations of 1868, 1875 and 1881 is shown in the margin.

Limits of enumeration.	Year of Census.	Persons.	Males.	Females.
Whole town ...	1868	5,024	2,662	2,362
	1881	4,804	2,532	2,272
Municipal limits ...	1868	5,069		
	1875	4,650		
	1881	4,804		

It is difficult to ascertain the precise limits within which the enumerations of 1868 and 1875 were taken. The figures for the population within municipal limits, according to the Census of 1868, are taken from the published tables of the Census of 1875; but it was noted at the time that their accuracy was in many cases doubtful.

The constitution of the population by religion and the number of occupied houses are shown in Table No. XLIII. Details of sex will be found in Table No. XX of the Census Report of 1881.

Dunyapur town.

Dunyapur is situated on the road from Mooltán to Kahror. It contains 2,041 inhabitants, but is a place of no importance. The town consists of a collection of brick houses in no way remarkable. There is a school and a police rest-house and road post. The Municipal Commitee consists of eight elected members. Its income for the last few years is shown in Table No. XLV, and is derived from octroi. The population, as ascertained at the enumerations of 1868, 1875 and 1881, is shown in the margin.

Limits of enumeration	Year of Census.	Persons.	Males.	Females.
Whole town ...	1868	2,687	1,310	1,377
	1881	2,041	935	1,106
Municipal limits ...	1868	2,708		
	1875	2,054		
	1881	2,041		

It is difficult to ascertain the precise limits within which the enumerations of 1868 and 1875 were taken. The figures for the population within municipal limits, according to the Census of 1868, are taken from the published tables of the Census of 1875; but it was noted at the time that their accuracy was in many cases doubtful. The excess of females over males is probably due to the fact that numbers of the male population are employed in Government Service elsewhere. The constitution of the population by religion and the number of occupied houses are shown in Table No. XLIII. Details of sex will be found in Table No. XX of the Census Report of 1881.

Talamba town.

Talamba contains 2,231 inhabitants. It is situated about two milles from the Rávi, which formerly flowed close to it. It is 51 mies from Mooltán and nine from the Channú railway station. The ancient town of Talamba, which lies about a mile south of the present town, is said to have been deserted, because the Rávi changed its course. The river continues to shift to the north-west, and the modern town threatens to be abandoned for the same reason. The

Chapter VI.

Towns, Municipalities, and Cantonments.

Talamba town.

town consists chiefly of brick houses built from the bricks of the ancient town. It contains a large *saràì*, said to be one of a series of *saràìs* made in Imperial times along the Lahore and Mooltán road. The *saràì* now contains the police station, school, post office, and police rest-house. At a quarter of a mile from the town on the south-west is an encamping-ground, two good wells, and a supply-house.

The municipal Committee consists of four non-official and the usual official members. The municipal income for the last few years is shown in Table No. XLV, and is derived from octroi. Before the opening of the Lahore and Mooltán section of the Sindh, Panjáb and Delhi Railway, and while the Rávi ran near the town, Talamba was a place of some importance. But its present interest is purely antiquarian. The modern village is built of brick taken from an old fortress lying one mile to the south, which is said to have been abandoned, in consequence of a change in the course of the Rávi, which cut off its water-supply, in or about the time of Mahmúd Langá (1510 to 1525 A.D.).* This fortress was one of great strength. Its antiquity is vouched for, on the authority of General Cunningham, "by the size of the bricks, which are similar to the oldest in the walls and ruins of Mooltán;" and it has already been identified with one of the towns of the Malli taken by Alexander in his invasion of India. It is said to have been also taken by Mahmúd of Ghazni, and is identified as the place where Alexander crossed the Rávi. Taimúr, though he plundered the town and massacred its inhabitants, left the citadel untouched, because its siege would have delayed his progress. General Cunningham, by whom the place was twice visited, gives the following description :—

"It consisted of an open city, protected on the south by a lofty fortress 1,000 feet square ; the outer rampart is of earth 200 feet thick, and 20 feet high on the outer face or *fausse-braie* with a second rampart of the same height on the top of it. Both of these were originally faced with large bricks, 12 × 8 × 2½ inches. Inside the rampart there is a clear space, or ditch, 100 feet in breadth, surrounding an inner fort 400 feet square, with walls 40 feet in height ; and in the middle of this there is a square tower or castle, 70 feet in height, which commands the whole place. The numerous fragments of bricks lying about, and the still existing marks of the courses of bricks in many places upon the outer faces of the ramparts, confirm the statement of the people that the walls were formerly faced with brick."

The population, as ascertained at the enumerations of 1868, 1875 and 1881, is shown in the margin. The constitution of the population by religion and the number of occupied houses are shown in Table No. XLIII. Details of sex will be found in Table No. XX of the Census Report of 1881.

Limits of enumeration.	Year of Census.	Persons.	Males.	Females.
Whole town ...	1868	3,152	1,762	1,390
	1881	2,231	1,214	1,017
Municipal limits ...	1868	3,152		
	1875	1,948		
	1881	2,231		

* "Anc. Geog.," I., p. 224. See *ante* p. 20.

APPENDIX A.

Memo. on the cultivation and manufacture of Indigo in the Mooltan district written at the time of the 1st Regular Settlement by Mr. Morris, Settlement Officer.

Appendix A.

Cultivation and manufacture of indigo.

Indigo being one of the most valuable staples of this district, as well as the chief revenue-paying crop of three of the principal *tahsils* in the same, it has appeared to me worth while to draw up a memo. on the subject of its culture and manufacture here, together with a few general remarks on the probable future extension of this most valuable product.

The best description of land to grow indigo is a light, rich soil, without too much clay on the one hand or sand on the other; towards the low lands of the river less attention is paid to soil, but then the produce is generally inferior both in quality and quantity. Saltpetre *(kallar)* in the soil almost entirely prevents the growth of indigo. The best indigo is grown in the high lands *(utàr* or *ràwà)*, where there is a regular and plentiful supply of water.

No soil, however good, will grow indigo without a great deal of irrigation, and in this district canal water is almost entirely used for this purpose, the method most in vogue being by overflow (*paggu*), the quantity that can be raised by this method being only limited by the extent of the area that can be brought under the influence of irrigation, little or no labour or expense being incurred. Next to *paggu*, irrigation by *jhalàrs* on the canal is preferred; this method is also much in vogue, specially in estates where the land is above the low level of the canal and cannot be reached by *paggu* irrigation, and, although more expensive, still it is on the whole more certain. As to simple well irrigation, this crop requires such constant supplies of water that it does not pay to raise it in this manner, except in situations where water is very near the suface. Indigo is hardly ever grown on *sailàba* land, that is, land watered by inundation from the river.

The seed is sown during the months of Baisákh and Jeth, the lower *khàdar* lands being sown rather earlier than those situated higher in the *utàr*. The plant takes from three-and a-half to four months to ripen, when it is cut. The field is first flooded with water and then the seeds are sown broadcast on the water; this is done to ensure their sinking into the ground, that none may remain exposed to the action of the sun.

The land in which it is intended to grow indigo is usually prepared during the cold season after the winter rains; it receives from four to five ploughings before the seed is sown, and none after. The more labour thus expended, the better the crop; but there is no ploughing after the first year.

The land is twice irrigated before the seed is sown, and after that every third day for a month, or until the plant is almost a foot high, when irrigation every eighth or tenth day suffices. When the plants are young, water is given only at night and sparingly for fear of their rotting from standing in the water heated by the rays of the sun; even when the plants are older and stronger, and in fact at every stage of its growth, the nicest discrimination is required in regulating the supply of water. An over-supply causes the leaves to

Appendix A.

Cultivation and manufacture of indigo.

turn yellow and deteriorate, whilst heavy falls of rain long continued do much injury, and often destroy the crop *in toto*. For the second year's indigo less irrigation will suffice, it being watered every eighth or tenth day. First year's indigo requires from 18 to 20 waterings, whilst for the second year 13 or 14 are sufficient.

Manure is not generally used, except in the Shujábád *tahsil*, where it appears to be advantageously made use of. Weeding is, however, common either by the hand or by sheep and goats being pastured on the field, who eat the weeds without destroying the crop.

The amount of seed sown, together with the average yield per *bigha*, varies according to the month of sowing; thus, if the sowings take place in Baisákh and Jeth, six sers of seed are used for each *bigha*, but if later, then eight sers. One sowing will, however, suffice for two years, and sometimes three, the plants being cut down to within half a foot of the ground the first year, and allowed to grow again the second. These second year's plants are called *mundián*; they require an early supply of water, and are killed by any frost.

With reference to the average yield per *bigha*, this, as stated above, varies according to the period of sowing; thus, if sown in Baisákh and Jeth, then the yield is 10 sers the first year, and 8 sers the second year. If in Hár, then 8 sers first year, and 10 sers second year. The third-year crop does not exceed 5 or 6 sers, and only the best land will produce indigo for three successive years. Land generally lies fallow a couple of years before indigo is again sown, unless it be of first-rate quality. Generally speaking, if the sowings take place early in Baisákh and Jeth, then the first year's produce is best, but if later in Hár, then that of the second year.

The young shoots of the plant are visible above the ground from 24 to 36 hours after the seed is sown, and leaves begin to appear after the third day. The utmost length the plant reaches is from 4½ to 5 feet, and it is known to be ripe and ready for the sickle when it begins to blossom. It is always cut before the seed pods begin to form, from six inches to one foot being left in the ground for the second year's crop. Another test of preparedness is to take a leaf in the hand and rub it; if it leaves a black stain, then it is ready, not otherwise.

The vats used for the manufacture of indigo, and commonly called *hauz*, are built in sets of three, two large on each side with a smaller one in the middle; they cost from Rs. 25 to 30 the set, and last for 15 years and upwards.

When the plant is ready, two men are employed, at Rs. 5 a month, on each set of vats; one cuts the plant, the other attends to the later operation of manufacturing and collecting the indigo. The plant when cut is tied up in bundles and at once taken to the large vats, in which they are placed upright with the stalks downwards, each vat containing from 8 to 10 bundles; at evening the water is let in sufficiently to entirely cover the plant, in which it is kept pressed down by heavy beams of wood placed across it. It is of importance that this steeping takes place as soon as possible after the plant is cut, otherwise it dries up, and is spoilt. After the plant has been steeped from 24 to 36 hours, it is taken out, leaves and all, leaving only the liquid in the vats, which the second workman now begins to churn up

with an instrument like a large paddle; this lasts about four hours, and is an act requiring great practice. It is called *bilonā*, the object being to assist the indigo or sediment to precipitate, which it does in about an hour after the churning is over. The clear liquid is then drawn off, leaving the sediment or pulpy water at the bottom of each large vat, which is then transferred to the smaller vat, and allowed to settle all night. In the morning the water is again drawn off from the smaller vat, the sediment carefully collected, tied up in a cloth and drained on a heap of sand: finally it is dried in the sun, kneaded into a paste with the hand, and made up into small balls, a little oil being added to heighten the colour.

Appendix A.

Cultivation and manufacture of indigo.

The refuse matter of the steeping, commonly called *val*, is used as manure for all crops indiscriminately; it is considered a good manure for poor land, but it is not carefully used, and often does not amalgamate with the soil till the crop is nearly ready for cutting. Canal water is almost invariably used for the steeping process, the vats being generally built in the vicinity of some large cut or branch of the canal from which an ample supply of water can be at once obtained.

As before stated, although the plant requires regular and constant supplies of water, too much is fatal; slight falls of rain are beneficial, but heavy or continued rain is very injurious, either washing all the colouring matter out of the leaves, or else causing them to drop off; the plant also will not bear submersion for any lengthened period, thus making good drainage an essential to its success. It is also subject to be attacked by a green insect somewhat resembling the blight and called *muahsari*, which makes its appearance at all stages of its growth; another disease also common to it in its earlier stages from the 5th to 30th day is brought on by excessive heat and the hot winds, which cause the plant to dry up and wither away.

A set of vats, as above stated, costs about Rs. 30, the two large vats being 4½ feet in diameter and 3½ in depth, whilst the smaller vat is about half the size, and even less. The vats are built by the proprietor, who also bears all the expenses of keeping the same in repair, &c., which are, however, trifling; all other expenses of manufacture, &c., are borne by the cultivator up to the time that the indigo is ready for the market; when the produce is divided, the proprietor generally taking one-third as his share. I must not also omit to mention that a *bígha* of land will generally grow enough plants to fill four pair of vats, and that each pair of vats will produce rather about more than two sers per diem during the steeping season, thus making the average yield of indigo per *bígha* to be from 8 to 10 sers.

The following is a pretty correct estimate of the average detailed expenditure per *bígha* during the first year:—

	Rs.	As.	P.
1. Price of seed, 7½ seers ...	0	12	0
2. Hire of bullocks ...	0	12	0
3. Labourers for cultivating and stacking ...	0	14	0
4. Expenses of irrigation and watching ...	0	12	0
5. Manufacture ...	0	12	0
6. Contingencies ...	0	4	0
7. Rent of vats or interest on capital ...	0	2	0
8. Expenses of *chhers* and *kassis* ...	0	10	0
9. Government revenue ...	0	10	0
Total ...	6	2	0

Appendix A.

Cultivation and manufacture of indigo.

For the second year items (1), (2), and 4 annas of (4) may be deducted, thus reducing the expenditure by Re. 1-12-0, and the yearly total to Rs. 4-6-0, and making the yearly average for both years to be Rs. 5-4-0. Now, assuming the yearly yield to be eight sers, and the price Rs. 50 per maund, we get the money value of the grown produce per *bígha* to be Rs. 10, therefore the net profit per *bígha* will be Rs. 10—5-4-0-4-12-0. I must here mention that the above calculations of gross produce, average price, &c., only apply to the ordinary indigo lands of the district, and not to the very superior produce of the lands of the Shujábád *tahsíl*, together with portions of *tahsíls* Mooltán and Lodhrán; in these, notwithstanding that the Government revenue ranges from 12 annas to 1½ rupee per *bígha*, the net profit will be nearly, if not quite, double that above stated.

There are three different kinds of indigo; the first and best description called *pawaurah* is known by a reddish tinge pervading it; in this the dye is richer and purer, whilst the specific gravity is less; its average price ranges from Rs. 50 to 80 per maund, and it is confined chiefly to some of the best estates of *tahsíls* Shujábád, Mooltán, and Lodhrán. The second kind is called *pacca sawah*; its specific gravity is greater, whilst the dye is inferior in colour, and contains a larger proportion of impurities; it fetches from Rs. 40 to 60 per maund. The third, *kacha sawah*, is altogether inferior, and sells at from Rs. 25 to 40 per maund.

The value of the indigo is determined solely by the richness and purity of the dye, which again is almost entirely dependent on the manufacture,— an act requiring the utmost skill and discrimination, and one that can only be learnt by long and constant practice. The churning process (*biloná*) is the most important; if this is continued too long, the indigo is spoiled; if not enough, the colour is dead and full; so again with the steeping, any mistake as to the time for removing the weights and extracting the plants will greatly deteriorate the quality of the dye. The value of the produce is also in some measure dependent on the soil, though, as above stated, the chief consideration is the irrigation; a plentiful and regular supply of water being required to ensure a good crop. Another important consideration is the state of the atmosphere at the cutting season; it should be clear and sunny, without either rain or clouds, which have an injurious effect on the produce.

From the above description of the manufacture of indigo in the district, it will be seen how rude the mode is, and how ill-calculated for the production of so rich and valuable a dye; still, notwithstanding this, it is greatly sought after by foreign merchants, large quantities being yearly exported to Bombay, Cabul, and other places. I have also heard that, notwithstanding the rudeness of the manufacture, so good is the actual dye as to astonish many Bengal planters who have seen it. That the quality of the indigo grown here is such that, with proper supervision and careful manufacture, it would amply repay any amount of capital expended on its production, is evident from Mr. McIver's letter to the Commissioner, dated 17th September 1855, in which he states that by experiments made in the Shujábád *tahsíl* he has produced indigo of excellent quality; on sending a sample of which, together with one of native manufacture, to Calcutta, the

former was valued by the Brokers there at Rs. 140 per maund, whilst the latter was pronounced to be not worth the cost of transport.

Appendix A.

Cultivation and manufacture of indigo.

The production of indigo in this district appears to have arisen simultaneously with the introduction of irrigation by inundation canals. The Patháṅ rulers, as also their successor Díwán Sáwan Mal, invariably realized the revenue due from this product in kind, at rates varying from one-third to one-fifth of the gross produce. Money assessments on land growing indigo were entirely unknown, whilst the *bhávli* rates depended chiefly on whether the canals were in the first instance made by the Government or the *zamíndárs*; in the former case one-third and one-fifth was taken, in the latter one-fifth or one-sixth.

Although the Patháns may be said to have introduced the growth of indigo, still it is to Sáwan Mal that the chief credit is due for having greatly extended the production of this most valuable crop, and made it, as it now is, the principal staple of this district. By him the old canals were enlarged and improved, in addition to two or three new ones constructed, whilst large branches or cuts were multiplied to such a degree that the lower portion of the peninsula presented the appearance of a perfect net work of canals.

Having by these means provided the irrigation necessary for the production of indigo, its growth was encouraged by lighter *bhávli* rates being fixed for all new lands brought under this crop, so that in the course of a few years there was a very visible and large increase in the amount of indigo annually produced. This was particularly the case with the Satlaj canals, from one of which alone, the Sardárwáh, of *tahsíl* Lodhrán, the Díwán realized from 900 to 1,000 maunds per annum of excellent indigo, where the Patháns did not get 200.

Such was the state of things on the accession of British rule in 1849; but from that time up to the present date I fear there has been a gradual falling-off in the production of this most valuable produce, which may, I think, be ascribed chiefly to two causes—first, to the want of direct Government interest in the production of this or any other particular crop; and, second, to the absence of any satisfactory arrangements for the effectul clearance of the inundation canals. Under the Sikh Government it was the principal object of each ruler to realize as much revenue as possible; and, consequently with collections made in kind, the more valuable the crop, the larger the amount realized; hence one and all were personally interested in encouraging the growth of so valuable a produce as indigo, towards which they assisted not only with their power and influence, but also with their capital, by lending pecuniary aid to those who without it would have been unable to make a beginning. So again, with the inundation canals, each *kárdár* was made responsible that the supply of water was plentiful and regular; indeed, so well aware was Sáwan Mal that the successful production of indigo depended on an early, plentiful, and constant supply of water, that the effectual clearance and punctual opening of the canal was considered as much the duty of the *kárdár* as the collection of the revenue.

It may perhaps be urged that under our revenue system, with a fixed money assessment, greater encouragement is given to the production of valuable crops than where collections are made in kind;

Appendix A.

Cultivation and manufacture of indigo.

but to this I would answer that this encouragement, though doubtless in reality greater, is of an indirect nature, whilst the latter is more direct and tangible, and therefore more acceptable to *zamindàrs* of the character of those chiefly to be found in this district. Moreover, on the accession of our rule, our revenue system was neither understood nor appreciated, though it was to be hoped that the people have now benefited in some measure from the experience of the last nine years; whilst with reference to the past unsatisfactory condition of the inundation canals, I trust the new arrangements now proposed by me will greatly rectify matters.

The best indigo is grown on the intermediate tract between the low land of the *khàdir* and the high land of the *bàr* or *ràwà* in *tahsìls* Mooltán and Shujábád, in some villages at the tails of the Walí Muhammad, Sikandarábád, and Gajjú Hattá canals. First rate indigo is also grown in the Sardárwáh *taluqa* of *tahsìl* Lodhrán, so called from a canal of that name by which it is traversed, whilst there is not a canal in the district which is not capable of producing very fair indigo.

Notwithstanding the readiness shown by the *zamindàrs* to avail themselves of every opportunity of obtaining canal-water for the purpose of bringing new land under cultivation, still there can be no doubt that there are yet many very extensive tracts of land in this district, with thousands of acres of good land, that could be most advantageously used for the production of indigo. The climate of this part of the country is peculiarly well adapted to the growth of this product. We have not here, as in Bengal, heavy periodical falls of rains to injure or destroy the crop just as it is ready for the sickle; on the contrary, the rise of the rivers by which inundation is afforded, though not quite regular, still is by no means so very uncertain or fluctuating as that whatever is sown here may not in a great measure be considered sure to yield a fair crop.

If we only had better canals with a more certain and punctual supply of water, there is no reason why the cultivation of indigo in this district might not be very largely increased; and with such splendid prospects of improved communications, both inland and seaward, I have no doubt a large export trade might be established in a few years, could European capital and enterprise only be introduced into the country. That such is not only feasible, but would eventually prove highly profitable, I am convinced; and, although doubtless at the commencement difficulties, caused chiefly by the peculiarity of the tenures, the variableness of the canal irrigation, and the absence of proper arrangements regarding remittances, would have to be met and encountered, still I feel sure they would not prove insurmountable, or such as to render the attempt an unsuccessful one.

APPENDIX B.

The Inundation Canals of the Mooltan District (by Mr. Morris, A.D. 1860).

Appendix B.

Inundation Canals.

Aspect of lower portion of Bárí Doáb.

The aspect of the lower portion of the Bárí Doáb, owing to the absence of rain and other causes, is generally that of a large tract, with fringes of luxuriant cultivation on its edges, but a barren waste towards the centre: as, however, we proceed lower down the Doáb, we find these fringes gradually expanding, until at last, at some little distance from the confluence of the rivers Chenáb and Sutlej, they extend very nearly, if not quite, across the entire peninsula.

Cultivation owing to the canals.

In the Mooltán district this extension inland of the cultivation commences shortly after the junction of the Rávi with the Chenáb, about 30 miles north of the city of Mooltán, as also at a point nearly opposite on the Sutlej. It isowing almost entirely to the existence of inundation canals, or large feeders from the rivers, running inland to considerable distances in a direction oblique to the general line of the Doáb, and which, by means of numerous branches or ducts, extending like huge arteries all over the country, spread life and fertility wherever they appear.

Canals of the district.

There are altogether in this district 34 of these canals, 14 issuing from the Chenáb, and 20 from the Sutlej. All these canals are comparatively speaking of recent formation, the most ancient of them not having been dug more than 100 years ago. They would appear to owe their existence to the drying up of the Beás and its numerous tributaries, as also to changes in the course of the river Rávi, which, by depriving this tract of the means of irrigation it had formerly enjoyed, rendered it incumbent on the inhabitants to devise some other mode of providing water for their lands, and hence the expedient of inundation canals was adopted.

Canals nearly all State property.

All the main canals are more or less the property of the State, some having been dug by the former rulers of the country, and others by powerful *zamìndárs* or associated village communities aided by Government. The majority of the Chenáb canals were made by the Patháns, when holding the position of rulers in Mooltán and Shujábád; whilst those on the Sutlej were chiefly dug by the Dáúdpotrás, a powerful tribe, who on the extinction of the Mogul power completed the conquest of this part of the country, and continued in possession until its conquest by Ranjít Singh. One of the largest, however, of the Sutlej canals, the Díwánwáh of *tahsìl* Mailsi, was excavated by Díwán Sáwan Mal, who also enlarged and improved several others, and showed great liberality in making grants for the re-excavation and improvement of the canals in general.

General description of the canal channels.

The mouths of the majority of the canals open from creeks, and not from the river direct, it being considered preferable to draw from a backwater which has already deposited a portion of the silt: the heads also so made last much longer than those into which the stream bears directly. For the first few miles the canals generally

Appendix B.

Inundation Canals.

General description of the canal channels.

occupy natural channels, as the beds of old rivers, &c., running down in a line nearly parallel to the course of the river from which they issue, after which on diverging more inland, their channels become almost entirely artificial. These channels are generally irregular without any effectual provision for the escape of surplus water branches for irrigation are thrown off, continually diminishing the main channel, the whole presenting in a map the appearance of the fibres of a leaf. The level nature of the country through which the canals pass renders their excavation a matter of no great difficulty, the banks being generally formed of the earth thrown out on each side, and strengthened by the roots of trees planted along them. In the low-lands, moreover, which are liable to submersion during the heavy floods, the banks are also protected by artificial dykes (*bands*), the preservation of which is most important, especially in the Mooltán and Shujábád *tahsíls*, which would otherwise be often entirely submerged, and their crops totally destroyed.

Evils from shifting of rivers.

The most serious obstacle, however, to the successful managment of the canals, and one which renders them more liable to derangement than any other, is the frequent shiftings of the river channels by which they are supplied with water: this is particularly the case with the Sutlej Canals, where the waters of the river very frequently recede from their mouths, leaving large sand banks which must be cut through for a supply of water, or a new head must be opened at some more favourable place. This constant liability to change in the borders of the rivers precludes the construction of any permanent works at the heads of these canals, whose supply of water must therefore depend on the annual clearance of silt, and the judgment with which their heads are selected. Again, canal heads are exposed to be destroyed by the encroachment of the river on the banks in which they are opened: the construction of masonry heads may sometimes prevent encroachment, but it can never prevent the river from moving away; whilst in the event of a canal opening from a branch of the river, however perfect the canal and its head may be, this can in no way prevent the head of the branch channel from which it may issue from being silted up or entirely closed. The Chenáb canals are less liable to derangement from the shifting of the river channel than those on the Sutlej, but then, on the other hand, their banks are not in such good order, towards the preservation of which, as also the voiding off the superfluous water, constant attention has to be directed. The water in these canals is in a measure prevented from rising to a dangerous height by breaches called *thals*, made at particular points in the banks, by means of which the surplus water can be conveniently returned to the river: these are useful in checking the effects of a sudden rise which passes off in a few days; but when the river continues high for a considerable time, they are not efficacious, and the canal embankments then give way in various places, and much mischief is done.

Irrigation only possible in general from beginning of April to end of September.

The level of the country traversed by the canals being considerably above that of the rivers when they are low during the cold season, it follows that the canals, the bottom of whose beds are only a few feet below that level, can only be filled during the rise of the rivers, caused either by the melting of the snow or the floods of the rains. It is

Appendix B.

Inundation Canals.

evident, therefore, that irrigation from these inundation canals can only be depended on during the hot and rainy months of the year, that is from the beginning of April to the end of September, or 6 months out of the 12, sufficient indeed for the production of the autumn crops, but of little direct benefit to the spring.

Chief crops irrigated.

The autumn crops are almost entirely raised by canal irrigation, the most valuable being indigo, sugar, rice and cotton. The very large amount of indigo grown in this district is entirely owing to the existence of inundation canals, without which there would be none at all; it is produced on all the canals, but chiefly on those of Mooltán, Shujábád, and Lodhrán; sugar is confined chiefly to *tahsíl* Shujábád, and rice to *tahsíls* Mooltán and Shujábád. All the other ordinary autumn crops, as *jowár*, *bájrá*, *til*, Indian corn, &c., are grown in large quantities. Although the spring crops are not directly irrigated by the canals, it being quite the exception to find any of the canals open during the cold season, still there can be no doubt but that the lands of wells in the vicinity of the canals derive much indirect benefit from receiving one or two waterings during the autumn prior to the spring sowing: the wheat crop especially is greatly benefited thereby, the outturn being far superior to that from land simply irrigated by wells.

The crop requiring the most plentiful and regular supply of water is indigo; the supply must also be *early* to secure a good outturn, especially with the second year's crop, called *mundián*, which must be watered quite early in the season to prevent the stalks from being scorched up by the rays of the sun. This early supply is generally supplied by the melting of the snow, which almost invariably commences before the middle of April. Sugarcane is plentifully watered from the canal so long as the water lasts, but it is generally brought to maturity by well irrigation. Rice requires water every fourth day from the beginning of June to the middle of September, up to which date the rivers are generally kept full by the floods of the rains. Indigo requires from 18 to 20 waterings during the season; cotton 15; *jowár* 12; *bájrá*, *til*, &c., 6.

Irrigation by "lift."

Canal irrigation is of two descriptions, either by *jhalárs* or water wheels on the edge of the main canal, and its principal branches, when the land is above the level of the water; or else by means of flooding from cuts, when it is below that level. The land in the immediate vicinity of the main canal is almost invariably watered by *jhalárs*, it being generally above the level of the water: even where this is not the case, flooding from the main canal is not allowed, in consequence of the serious injury thereby done to the banks, as well as the great waste of water. *Jhalárs* are of various descriptions.

1st—Bahr baddí, where the water is close to the surface: this kind have only a few pots attached to them, which, however, are very large, being double the size of the ordinary pots on wells.

2nd.—Atangan, or ordinary *jhalár*, where the water is at an ordinary distance, and as many as 50 or 60 pots are used.

3rd.—Begharrí or the double *jhalár*: here the water is at a considerable depth, and two wheels are used, the first raising the water to a reservoir from which it is raised by the second to the surface.

Appendix B.

Inundation Canals.

Irrigation by "lift."

Paggú or "flush" irrigation.

The cost of putting up a *jhalár* varies from Rs. 15 to 30, whilst the average amount of land annually irrigated by one is about 15 acres. Each *jhalár* has four pair of bullocks attached to it, by which it can be worked day and night, so that although *jhalár* irrigation is expensive, still it is on the whole far superior to that afforded merely by wells. The second description of irrigation, commonly called *paggú*, is of a peculiar character; here the land lies below the level of the canals, and is therefore capable of being irrigated without raising the water. Cuts are made from the canals and their branches with their banks raised above the level of the soil, and water is admitted to the fields as occasion requires. The cost of this mode of irrigation is consequently much less than that of *jhalárs*, but it is also much less certain, this description of land being generally found at the tail of the canals, and therefore dependent solely for irrigation on the rise of the water; when the rise of the river is small, much land of this description must remain uncultivated.

Combination of irrigation from canals and wells.

Some lands irrigate by both *jhalárs* and flooding, according to the rise and fall of the water, the *jhalárs* being often also attached to wells. This land is the most productive and profitable, it being irrigated by the wells when the canal is dry, and from the canals during the season of inundation. This double irrigation is very valuable, enabling the *zamíndárs* to secure both spring and autumn crops: in the event also of the canal failing at an early period of the season, they have their wells in reserve to save their autumn crops. This early failure is however not very common.

Variation in supply of water.

From the above description it will be evident that the irrigation afforded by the inundation canals of this district is very dissimilar to that from the canals of the Ganges and Jamna. On the latter the irrigation is not unlike river inundation, the water merely flowing off to a lower level and watering the lands on each side of the canal as occasion requires: here this is not the case; the land in the vicinity of the main canal is not generally that which gets the best irrigation; on the contrary, from being often much above the level of the water, it is not watered at all, or else only by *jhalár*, whilst villages at the tail of the canal and its numerous branches are receiving a plentiful supply, their low lands being completely flooded by the overflow *(paggú)*. So again with the distribution of the water, regarding which there must be considerable variation from year to year; thus in favourable seasons, with high floods and the river full, the villages enjoying *paggú* irrigation get most water, whilst in unfavourable years, when the river is low, and the level of the water in the canal not sufficiently high to reach the cuts, the estates irrigated by *jhalárs* are best off. Nor is it possible on these canals to measure the quantity of water supplied, as is done on the canals of the North-Western Provinces, without providing gauges to each separate cut or outlet from the canal, a scheme quite impracticable, to say nothing of its failing to show the amount of water raised by machinery from the main canal.

Annual silt clearances necessary.

The frequent alterations in the river channels render heavy cuttings through large sand banks, or the construction of new canal heads, necessary to secure the required supply of water. In addition however to this, an annual clearance of the silt, which regularly

accumulates each year in every canal, is also indispensable: otherwise the canal bed would in the course of a few years become so choked up as almost entirely to prevent the ingress of any water at all, except during the very highest floods.

Appendix B.

Inundation Canals.

Chher system.

Since the formation of the canals, their annual repair and clearance, the stoppage of breaches, preservation of banks, and all other expenses, have been borne by the *zamíndárs* benefiting from their irrigation. Under the Pathán and Sikh Governments, occasional grants were made for extending and improving the canals, but these were regarded as matters of favour, not right, whilst, on the other hand, all ordinary expenses of every description were borne by the people themselves, who were moreover especially called on to furnish labourers for the annual clearance. The labourers thus furnished were commonly named *chhers*, and hence this system of clearance is technically known as the *chher* system.

Chher system under Sikh *regime*.

The *chher* system under the Sikhs may be briefly described as follows. When the time for clearing the canals arrived, the *kárdár* of each *pargannah* demanded as many labourers as he considered necessary for the season, according to the state of the canál and extent of clearance required. The number to be furnished by each village and proprietor was then determined on, some furnishing according to the number of their wells or yokes, and others according to the produce of their lands in the past season, a certain number of labourers being fixed for each Rs. 100 worth of produce. The labourers thus furnished were paid by the parties furnishing them, and it was incumbent on them to be present during the entire season of clearance, non-attendance being punished by a fine called *nághah* which varied from two to three annas a day. The proceeds of these fines were used in providing hired labourers in the room of the absentee *chhers*, and also in the payment of a small establishment, consisting of a *darogah*, a *muharrir* and some *míróbs*, whose duty it was to keep the *chhers* at work, and generally look after the canal. The balance, if any, remaining, after the payment of the hired labourers and establishment, was carried to the credit of Government. *Chhers* were furnished by all villages receiving water, with the exception of the six suburbs of the city of Mooltán, and a few small estates in their vicinity, from whom however a water rent varying from Rs. 1 to 4 and 5 per *jhalár* was levied in lieu of *chher* labour.

Government *chher* system only adopted on main channels.

The system of annual clearance by *chhers*, enforced and superintended by Government, only applied to the main canals and their principal branches, which, having in the first instance been excavated by the rulers of the country, were considered the property of the State. All the smaller cuts or ducts, by means of which the water is conveyed to a considerable distance from the main channel, being considered the private property of those by whom they were originally dug, were maintained and annually cleared at the sole expense of their respective owners, who again in their turn took *ábiánah* or water rent at Rs. 3-8-0 per *jhalár*, or else one-eighth of the produce, from those whom they supplied with water.

Chher system under Sáwan Mal popular.

From the above it will be seen that the annual clearance and whole expense of maintaining the canals was borne by the community, and although the system was liable to abuses, still there can be no

Appendix B.

Inundation Canals.

Chher system under Sáwan Mal popular.

doubt but that on the whole it was popular with the people, especially under Diwán Sáwan Mal, whose entire system of canal management is even now never mentioned or referred to but in terms of the highest commendation. The chief aim of the Diwán was to secure an early and plentiful supply of water; to effect this he well knew that a thorough annual clearance of the canals was absolutely necessary, and only obtainable by the regular attendance of the *chhers*. Their attendance therefore was rigorously *enforced*, and although in some few instances the *náyhah* fine was levied from absentees, still these were the exceptions, *the real fact being that chhers were not allowed to absent themselves.* In short the system under Sawán Mal was one of forced labour: the *chhers* were *forced to come*, and *forced to work*, and hence the canals were dug. If any *zamíndár* failed to furnish his quota of *chhers*, he *was beaten till he did*, and the *chhers* once obtained, stringent measures were taken to keep them at their work. Again, the *kárdárs* and principal headmen in share of the canals were made personally responsible for their proper and early clearance, which was consequently well and effectually done.

Another important point with the Diwán was the mode of levying the *chhers*, care being taken that the quota of labour contributed by each should be in proportion to the amount of benefit derived from the canal. Doubtless there were exceptions to this, men of influence being sometimes excused from furnishing their quota, and the rich benefiting at the expense of the poor; but still such instances were rare; and as a general rule the distribution of labour was very fair, it being left in a great measure to the people themselves, and checked by the system of direct revenue management then in vogue, which was very well adapted to show the amount of benefit each had derived from the past year's irrigation. Again in effecting the clearance the wishes of the *zamíndárs* were consulted, some of the principal *lambardárs* being always present to superintend operations; indeed their presence was in a great measure enforced, but then they were remunerated by being allowed to have one or two of their *chhers* exempted from attendance. Lastly, in the few instances where absentees were allowed, and the *náyhah* fine levied from them, care was taken that their places should be supplied by hired labourers, to prevent the injustice that would otherwise have resulted from the working *chhers* having a double task to perform, *viz.*, their own share of the clearance, and also that of the absentees.

In short the success of the Diwán's system may be ascribed to two principal causes. First that the system was essentially one of forced labour, thus ensuring an effectual and timely clearance; and, secondly, that the superintendence of this clearance was chiefly in the hands of those most interested in its being fairly carried out, so as to secure for each village on the canal an amount of water proportionate to its wants.

System continued on annexation.

During the first year after annexation but little alteration was made in the system of canal management, the former mode of clearance, &c., being kept up nearly intact by Ghulám Mustafá Khán, who was employed by Captain James in looking after and managing the canals generally. A continuation of this system was also recommended by Captain James, who was opposed to placing the canals under a separate

Appendix B.

Inundation Canals.

department, and strongly advocated their being left under the District Officer, and managed directly by a Native Superintendent with a small establishment under him.

Canals placed under Canal Department in January 1850.

This proposition did not meet with the sanction of the Board of Administration, for in January 1850 the canals were placed directly under the Canal Department, Lieutenant Anderson of the Madras Engineers being appointed to superintend the same with a staff of assistants, native surveyors, &c., under him. Of the assistants, Captain Rose was placed in charge of the Chenáb canals, and Mr. O'Brien of those on the Sutlej.

System there laid down by Civil Engineer.

The following arrangements were also drawn up by Colonel Napier for the future management of these canals:—

1st.—The Executive Officer to be called the Superintendent of Inundation Canals, and invested with magisterial powers.

2nd.—That the Superintendent of Canals act under the orders of the Civil Engineer as Consulting Engineer to the Commissioner.

3rd.—That he direct personally and through his assistants the clearance and improvement of the canals now in use: also the restoration of ancient and opening of new canals.

4th.—That the clearance of the canals be effected by statute labour, and fines in default of labour be exacted at the *current rate of hire*: also that the main canals only be cleared, not the cuts.

5th.—That improvements beyond the means of statute labour be paid for by advances from the State, to be afterwards recovered by a water rent not exceeding 8 annas an acre per surface irrigation, and 4 annas for irrigation by machinery.

6th.—That the *pancháyat* system formerly in vogue being retained, the *tahsíldár* and *pancháyat* attend to the directions of the superintendent in the executive work of clearing out the canals, and in the amount of statute labour to be called out.

7th.—That the calling out of statute labour, the distribution of the demand on the several villages, and the exaction of fines for default, be executed by the *tahsíldár* under the orders of the Civil Officer.

8th.—That the funds realized from the proceeds of fines or water rent be applied to the improvement of the canals, the latter however being liable to deductions in repayment of advances made by the State.

9th.—That it be the duty of the Superintendent of Canals to bring to the notice of the Commissioner any diversion of the funds from fines or water rent from the service of the canals, or any cases of injustice in the distribution of the water or demand for statute labour.

Colonel Napier's general idea regarding the management of the canals appears to have been that the Civil Officers and Engineers should work hand in hand: that "the business of clearing out the "canals should be commenced by the Civil Officers advised by the "Engineers, that the Engineers should promptly examine and report "on all canals requiring particular notice;" and lastly that "the "opening of new canals and improvement of old ones should go on "under the Engineers, and on completion be transferred to the Civil "Officers for general management."

The above system in force till 1855 failed.

The above arrangements proposed by Colonel Napier continued in force with slight modifications until the end of 1855, but their

Appendix B.

Inundation Canals.

The above system in force till 1855 failed.

working appears to have been far from satisfactory. The chief difficulty and cause of failure arose from the fact of the Canal Officers not having sufficient control over the machinery employed in the clearance and improvement of the canals; thus all the real executive management, as the levying of the *chhers*, collection of fines, payment of hired labourers, appointment of *daroghahs*, *muharrirs*, &c., was in the hands of the *tahsildárs*, who were indeed ordered to attend to the directions of the Canal Officers, but do not appear to have obeyed these orders. Another cause of failure appears to have been that all the establishments employed in superintending the clearance were underpaid, and only temporarily employed, which naturally led to their becoming dishonest, lazy and inefficient. A third was the fact of the entire surplus from fines realized from absentees (*zar nàghah*) being credited to Government, instead of being expended, as it should have been, in the payment of hired labourers to fill up the places of absentees, and the general improvement of the canals.

Principal of these defects remedied by rules of January 1856.

The principal of the defects were however presently remedied, the Chief Commissioner having ruled in his Secretary's letter No. 145, dated 30th January 1856, "that the entire executive management of "annually clearing out, repairing and improving the inundation canals "should be entrused solely to the Canal Officers, and that they should "have entire control over the establishment;" also "that the proceeds "of fines levied from defaulters under the *chher* system should be "devoted exclusively to the improvement of the canals;" whilst with reference to the employment of a permanent establishment for these canals, the sanction of Government for the entertainment of the same at a maximum cost of Rs. 822-8-0 per mensem was granted in resolution No. 2399, dated 9th May 1856.

System unsatisfactory, and why.

This system was found to be far from satisfactory. In the first place it was highly unpopular; secondly, it did not effectually secure that most important desideratum, an *early* supply of water; thirdly, under it the rich and lazy benefited at the expense of the poor and industrious; fourthly, the mode of levying *chhers* was not in accordance with the principle that the quota of labour furnished for the clearance of the canal should be in proportion to the amount of benefit derived from it; and, lastly, there were no proper arrangements for a fair and equitable distribution of the water.

First defect *zar-nághah* not applied to legitimate purposes.

The first radical defect in the system was that the proceeds of fines levied for the non-attendance of *chhers* were not applied to their sole legitimate object, *viz.*, the payment of hired labourers to supply the places of absentees. Formerly they were so applied; whilst the injustice of carrying them to the credit of Government, or making use of them in any other manner, very little consideration will show. For instance, 600 *chheras* were called out on a canal, the clearance of which would occupy them three months; only 400 attended, the remaining 200 preferring to pay *nághah*; the entire labour of clearance fell then on the unfortunate 400, who were thus forced to work half as much again as their fair share, and the lazy 200 got off with a trifling fine, the payment of which was often evaded, whilst in the event of the *zar nàghah* being carried to the credit of Government, it (the Government) gained at the expense of both. Nor was this all, for in addition the clearance of the canal was thereby

considerably delayed: thus if 600 *chheras* could not effect the clearance under three months, it would take 4½ months for 400 men to get through the same amount of work; in short, the opening of the canal would be delayed for 1½ month, and the result would be a failure of the early supply of water.

Appendix B.

Inundation Canals.

First defect *zar nàghah* not applied to legitimate purposes.

Nor did the rule "that the proceeds of these fines be devoted exclusively to the improvement of the canals" do more than meet half the evil. Doubtless this was a great improvement on the former system of crediting Government with the entire amount, but still, unless applied to the actual payment of hired labourers in lieu of absentees, it did not provide a remedy for the evils pointed out in the preceding paragraph; the lazy would still benefit at the expense of the industrious, the clearance would be delayed, and there would be a failure of the *early* water-supply.

Mr. Morris' proposals.

Mr. Morris was of opinion that there were only two ways in which the *chher* system could work successfully, either one of forced labour, or else the proceeds of fines levied from defaulters must be devoted exclusively towards providing hired labourers in the room of the absentees. Of the two plans he inclined to the former.

Nearly all the land on the canals is in the hands of cultivators, from whom their landlords realize in kind at certain fixed rates. In the majority of instances these cultivators are allowed lighter *bhàolì* rates, on the express condition that they will work as *chhers* at the clearance of the canals; any failure therefore on their part to appear as *chhers* is a direct breach of their contract with the proprietors; thus by forcing them to come and work, we only make them fulfil their agreement with their landlords. On the contrary, allowing the cultivators to break their contracts is a direct injustice to the proprietors, from whom after all the bulk of the *nàghah* is realized, for when the season for payment arrives, the real defaulters, the cultivators, have not the means of payment, and hence the burden falls on the proprietors, who must either pay themselves or else lose their cultivators by coercing them to do so,—a choice of evils of which the former is far preferable to the latter, so valuable are cultivators here, it being almost impossible to supply their places. Again, the three months of the clearance, *viz.*, January to March, are comparatively speaking idle months with the cultivators: if not employed on the canal, they will be doing little or nothing at home, the spring sowings having been entirely completed by the middle of December, and harvest time not coming on till the commencement of April: to force them therefore to be absent from their fields during that period is no such great hardship after all

Cultivators idle in season of clearance. Forced labour system popular with the community.

With regard to the second plan proposed, *viz.*, filling up the places of absentees with hired labourers, Mr. Morris pointed out that, while it would remedy the principal defects of the present system, it would not do away with the hardships to which proprietors were subject; as they must either make entirely new arrangements with their cultivators, no easy matter if indeed possible, or else they must continue to pay, as at present, a portion of the fines due from their *àsàmìs*. Moreover, there was this difficulty attending it: the *chhers* do not absent themselves regularly. Of 10 who fail to attend one day, 5 will be present the next, 3 the next, and so on, so that it is no

Appendix B. — Inundation Canals.

easy matter for the Canal Officer to supply the places of such absentees with hired labourers, who must get regular employment and pay, and cannot be engaged to-day, discharged to-morrow, and taken on again the third day.

Defect of old *chher* assessment.

The third defect was the mode of levying the *chhers*, or in other words the *chher* assessment. This differed on the Chenáb and Sutlej canals respectively: on the former the *chhers* were levied at a certain percentage on the revenue, whilst on the latter the canal lands were measured each year, and one *chher* levied for every 30 *bigahs* or 15 acres irrigated. Of the above two systems there can be no doubt but that the one in vogue on the Chenáb canals was the best. Any system of annual measurement is unpopular with the people, injurious in its effects, inquisitorial in its nature, and affords great opportunities and inducements for fraud. The Chenáb system was however far from perfect, and was open to the grave objection of not fulfilling the fundamental principle, that the amount of labour annually supplied by each village should be in proportion to the value of the irrigation received. Where the distribution of the canal irrigation to the different villages is not liable to variation from year to year, then doubtless the Chenáb system would be a fair one, provided the amount of irrigation enjoyed by each estate were accurately ascertained before the assessment of the revenue. But this is not the case, the distribution of the water annually varies, and although these variations are not such as to prevent the successful working and regular collection of a light revenue assessment, still they do render necessary a yearly redistribution of the *chher* assessment, which can only be successfully made by the people themselves.

Mr. Morris recommends that quotas for each canal be fixed, but distribution left to people themselves.

Mr. Morris therefore considered that the only system of *chher* assessment which could work successfully was the following; *viz.*, that the Government should determine on the total number of *chhers* required for the annual clearance of each canal, but that the yearly distribution of the *chhers* should be left entirely in the hands of those benefiting from the canal irrigation; since none can tell so well as the people themselves who have received more water and who less, and they take good care that the amount of labour contributed by each shall be in an equal proportion to the benefit gained.

Another defect, divided responsibility of departments and officers.

Another defect in the mode of canal management was that one department was not made solely responsible for the success or failure of the system. For the management of the canals, though nominally in the hands of the canal officers, was divided between the engineers and civil authorities: and there was still another defect; it was the multiplicity of officers in charge of the canals, which tended greatly to retard improvements and cause delay. The real fact is that the true character of these canals had not been properly understood. They are not elaborate works requiring scientific supervision to keep in order and improve: on the contrary, they are simple designs, easily executed, and requiring for their improvement pecuniary rather than scientific aid. Estimates and measurements are quite thrown away on them: in many instances indeed the nature of the work to be done is such as to render their preparation almost an impossibility, whilst in almost all the delay caused by their submission involves a loss of revenue often exceeding the original outlay.

Appendix B.

Inundation Canals.

Mr. Morris' arrangements.

On the grounds detailed above, Mr. Morris decided permanently to fix, in concert with the canal officers, the number of *chhers* to be annually called out on each canal, due care being taken that the interests of the canals did not suffer on the one hand, or that an excessive amount of labour was not exacted from the *zamíndárs* on the other. In carrying out this measure he was guided by the opinion of the canal officer, the past history of the canal, its present condition, the number of *chhers* annually called out since annexation, the amount of land irrigated as shown by the measurement returns, the number of wells and *jhalárs*, and numerous other statistical data. The number of *chhers* thus fixed on for each canal held good for the term of Settlement, except where subsequent alterations or improvements in any canal rendered a revision of the *chher* assessment necessary. The *chhers* were required to be annually present until the *entire clearance* had been effected. This was absolutely necessary, for the canals are useless unless *thoroughly* cleared each season. Should the clearance be got through in less than three months, the canal officer was empowered to employ them on improvements until the completion of that period, but no longer on any account whatsoever.

Water-rate fixed for terms of Settlement impracticable.

On the proposal to levy a fixed water rate or *àbiànah*, Mr. Morris wrote :—"The Chief Commissioner observes that while he is very much opposed to any system of *àbiànah* based on annual measurements, still that he can see no objection to a system of money payments to be in force for the same term as the revenue settlement, and to be fixed after a careful measurement. There can be no doubt but that any system of annual measurements is highly objectionable, whilst with respect to fixed money payments for *àbiànah*, I would observe that this can only be feasible so long as the distribution of the water continues in some measure invariable. Unfortunately it is not so in these canals, and consequently I am of opinion that any such system must ultimately break down. A water-rate to be fair, and capable of regular realization, must alter with the variations in the distribution of the water on account of which it is levied; and the only mode in which this can be satisfactorily done, is by leaving the distribution of the *àbiànah* in the hands of the people themselves, in the same manner as already proposed for the distribution of *chhers*. In short, should it be deemed advisable to attempt a money payment in lieu of *chher* labour from any of the canals, I would fix permanently with the land tax the total amount due as *àbiànah* from that canal, but leave it to the *panchàyat* to regulate year by year the sum due from each separate village.

Objections to system of money payments.

"Such then is the plan I would propose for adoption, should the people on any particular canal voluntarily consent to a water rent, which is just possible on some of the Chenáb canals, as already on two of the canals, the Walí Muhammad Khán and Sháhpur, the six suburbs of the city of Mooltán pay *àbiànah* in lieu of *chhers*: but with reference to a money payment generally in lieu of the present *chher* system, the following strong objections may be urged against it :—

"*1st.*—It would be highly unpopular.

"*2nd.*—It would be realized with great difficulty.

"*3rd.*—It would not be easily worked.

Appendix B.

Inundation Canals.

Objections to system of money payments.

"*4th.*—It would be almost impossible to procure an adequate amount of free labour to supply the place of the *chhers*.

"Lastly, it would upset all existing arrangements between proprietors and cultivators, for a water rent to be realized at all must be paid by the proprietors, who would consequently be obliged to exact higher *bháolí* rates from their *ásámís* to compensate for their exemption to appear as *chhers*.

Clearance heavier on Sutlej than on Chenáb canals.

"Much stress has been laid on the inequality of the present *chher* system, as applied to the Chenáb and Sutlej canals respectively, and several propositions have been made for the assimilation of the demand for statute labour from the Chenáb to that which prevails on the Sutlej. Under the revised system this anomaly will be in a great measure remedied; but still there can be no doubt but that under any system the burden of clearance in proportion to the amount of benefit derived from their irrigation must fall more heavily on the Sutlej than the Chenáb canals, in consequence of the latter being in themselves superior to the former. Another point worthy of notice is that the number of cuts on the Chenáb canals far *exceed those on the Sutlej*, and these have to be cleared by the proprietors in addition to the regular bed of the canal."

STATISTICAL TABLES

APPENDED TO THE

GAZETTEER

OF THE

MOOLTÁN DISTRICT.

(INDEX ON REVERSE).

"ARYA PRESS," LAHORE.

STATISTICAL TABLES.

Table No. IIIA, showing RAINFALL at head-quarters.

1	2	3	1	2	3
MONTHS.	ANNUAL AVERAGES.		MONTHS.	ANNUAL AVERAGES.	
	No. of rainy days in each month—1867 to 1876.	Rainfall in tenths of an inch in each month—1867 to 1881.		No. of rainy days in each month—1867 to 1876.	Rainfall in tenths of an inch in each month—1867 to 1881.
January ..	1	2	September ..	1	3
February ..	1	2	October ..	..	..
March ..	2	6	November ..	..	1
April ..	1	4	December ..	1	2
May ..	1	3	1st October to 1st January ..	1	3
June ..	1	4	1st January to 1st April ..	3	10
July ..	3	21	1st April to 1st October ..	8	52
August ..	2	12	Whole year ..	12	65

NOTE.—These figures are taken from Table No. XXIV of the Revenue Report, and from page 34 of the Famine Report.

Table No. IIIB, showing RAINFALL at Tahsil Stations.

1	2	3	4	5
TAHSIL STATIONS.	AVERAGE FALL IN TENTHS OF AN INCH, FROM 1873-74 TO 1877-78.			
	1st October to 1st January.	1st January to 1st April.	1st April to 1st October.	Whole year.
Shujabad ..	1	1	39	41
Lodhran ..	1	5	55	61
Mailsi ..	1	..	18	19
Sarai Sidhu ..	2	4	35	41

NOTE.—These figures are taken from pages 36, 37 of the Famine Report.

Table No. IV, showing TEMPERATURE.

1	2	3	4	5	6	7	8	9	10
YEAR.	TEMPERATURE IN SHADE (IN DEGREES FAHRENHEIT).								
	May.			*July.*			*December.*		
	Maximum.	Mean.	Minimum.	Maximum.	Mean.	Minimum.	Maximum.	Mean.	Minimum.
1868-69 ..	121·0	..	..	115·0	..	..	84·0	39·0	58·15
1869-70 ..	124·0	68·0	94·18	114·75	72·0	93·25	79·0	40·0	56·94
1870-71 ..	..	..	..	..	..	..	..	..	..
1871-72 ..	121·0	72·0	91·69	117·0	74·0	94·61	105·0	..	..
1872-73 ..	119·7	..	..	114·5	75·0	95·08	90·0	35·7	60·85
1873-74 ..	116	80	87·65	117	76	96·88	88	35	57·54
1874-75 ..	120·0	62·0	92·37	125·0	74·0	96·00	83·0	31·0	57·17
1875-76 ..	119·0	67·0	94·03	115·0	73·0	95·47	77·0	37·0	59·18
1876-77 ..	119·0	94·9	66·0	113·0	94·2	78·0	76·9	57·0	38·1
1877-78 ..	109·9	87·3	65·1	109·0	93·2	76·2	77·9	59·3	39·0
1878-79 ..	110·9	89·3	66·2	113·9	95·1	75·2	93·9	55·8	36·0
1879-80 ..	115·9	91·7	67·2	111·9	95·0	77·2	75·9	55·3	33·0
1880-81 ..	114·9	70·2	92·5	108·9	75·2	91·9	78·9	39·0	57·9
1881-82 ..	112·9	91·6	61·1	109·9	92·3	74·2	79·9	59·2	36·0

Table No. II, showing DEVELOPMENT.

1	2	3	4	5	6	7
Details.	1853-54.	1858-59.	1863-64.	1868-69.	1873-74.	1878-79.
Population ..	..	..	..	472,263	..	551,964
Cultivated acres ..	..	..	..	624,434	624,640	709,300
Irrigated acres ..	..	..	..	505,750	540,657	410,054
Ditto (from Government works) ..	..	..	..	303,627	192,733	309,644
Assessed Land Revenue, rupees ..	..	..	..	5,32,404	5,41,760	5,43,895
Revenue from land, rupees ..	..	..	..	5,09,405	6,70,171	5,25,125
Gross revenue, rupees ..	..	..	..	7,19,429	9,81,963	8,91,260
Number of kine ..	..	..	..	182,411	167,174	163,809
" sheep and goats ..	..	..	..	313,087	311,589	326,190
" camels ..	..	..	..	11,942	15,050	23,854
Miles of metalled roads ..	..	..	..	} 1,467	59	51
" unmetalled roads ..	..	..	..		1,430	907
" Railways ..	..	..	..	64	81	130
Police staff ..	..	..	837	906	817	834
Prisoners convicted ..	1,037	1,237	988	1,338	2,709	4,035
Civil suits,—number ..	1,255	1,197	1,680	3,010	3,970	5,451
" —value in rupees ..	90,989	1,07,926	1,53,157	2,19,832	3,31,369	2,61,514
Municipalities,—number ..	..	..	..	..	3	6
" —income in rupees ..	..	..	..	93,566	81,828	91,302
Dispensaries,—number of ..	..	..	..	3	3	5
" —patients ..	..	..	..	9,511	20,100	28,122
Schools,—number of ..	..	..	55	58	47	57
" —scholars ..	..	..	1,165	1,985	2,009	2,856

NOTE.—These figures are taken from Tables Nos. I, III, VIII, XI, XV, XXI, XLI, XLV, L, LIX, and LXI of the Administration Report.

Table No. III, showing RAINFALL.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
	ANNUAL RAINFALL IN TENTHS OF AN INCH.																	
Rain-gauge station.	1866-67.	1867-68.	1868-69.	1869-70.	1870-71.	1871-72.	1872-73.	1873-74.	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	Average.
Mooltan ..	25	79	86	91	19	18	59	77	85	37	76	134	107	37	56	51	91	[illegible]
Shujabad ..	25	37	48	126	43	7	86	25	100	44	87	362	92	16	26	19	54	67
Lodhran ..	17	71	34	62	73	52	107	40	55	43	124	116	70	19	30	40	72	60
Mailsi ..	14	39	34	101	38	18	39	22	18	6	35	15	57	20	65	83	69	46
Sarai Sidhu ..	36	108	77	150	48	21	64	90	27	24	61	119	86	55	34	41	115	53

NOTE.—These figures are taken from the weekly rainfall statements published in the *Panjab Gaz*

Table No. XXVI, showing RETAIL PRICES.

1	2		3		4		5		6		7		8		9		10		11		12		13		14		15		16	
	Number of seers and chitanks per rupee.																													
Year.	Wheat.		Barley.		Gram.		Indian corn.		Jawar.		Bajra.		Rice (fine).		Urd dal.		Potatoes.		Cotton (cleaned).		Sugar (refined).		Ghi (cow's).		Firewood.		Tobacco.		Salt (Lahori).	
	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
1861-62 ..	15	10	19	9	15	3	..	..	16	5	15	14	8	..	11	4	..	..	3	4	2	7	1	13	149	5	5	..	11	11
1862-63 ..	20	6	33	12	21	4	..	..	28	3	25	9	9	..	15	..	..	..	2	12	2	6	1	14	147	12	4	10	10	1
1863-64 ..	20	13	32	15	25	8	..	..	31	10	30	5	9	2	15	13	..	..	1	6	2	4	2	1	130	10	4	10	9	10
1864-65 ..	13	11	18	15	19	15	..	..	17	13	16	15	7	9	12	12	..	..	1	2	2	5	1	14	130	10	3	10	9	1
1865-66 ..	12	12	20	8	19	8	..	..	16	5	17	12	7	6	15	2	..	..	3	9	2	7	1	6	111	15	4	11	9	15
1866-67 ..	15	14	19	4	21	11	..	..	18	4	19	4	6	13	16	1	..	..	2	3	2	9	1	5	97	15	4	6	9	12
1867-68 ..	13	4	19	15	17	6	..	..	20	1	18	9	7	4	13	12	..	..	2	8	2	4	1	5	105	13	3	9	10	1
1868-69 ..	13	7	19	6	14	12	..	..	14	15	16	14	6	6	10	5	..	..	2	2	2	5	1	4	107	5	3	12	10	4
1869-70 ..	9	11	16	3	9	15	..	..	13	10	13	5	5	6	8	11	..	..	1	12	2	4	1	6	98	5	4	8	9	15
1870-71 ..	12	5	17	13	14	6	..	..	17	12	14	12	6	2	12	15	..	..	2	3	2	4	1	6	93	5	3	13	9	11
1871-72 ..	17	12	26	8	17	..	17	..	27	..	24	..	6	..	15	..	9	..	2	4	2	14	1	5	100	..	3	..	11	..
1872-73 ..	19	..	24	..	17	..	25	..	26	..	28	..	8	..	13	8	13	..	2	6	2	12	1	8	80	..	4	..	10	12
1873-74 ..	16	..	22	..	22	..	24	..	25	..	22	..	8	..	16	..	14	..	2	12	3	..	1	13	102	..	4	..	10	12
1874-75 ..	20	..	29	..	29	..	26	..	27	..	25	..	7	..	18	..	14	..	3	2	2	12	1	12	100	..	5	..	10	8
1875-76 ..	18	8	26	..	23	..	23	..	24	..	24	..	7	..	15	8	12	..	2	12	2	12	1	11	100	..	3	..	10	12
1876-77 ..	28	..	40	..	40	..	28	..	28	..	27	..	6	..	18	..	15	..	2	12	3	..	1	9	90	..	4	..	10	..
1877-78 ..	14	8	23	..	17	..	20	..	20	..	20	..	7	8	10	8	12	..	2	8	2	8	1	8	56	..	4	..	10	12
1878-79 ..	9	12	15	..	13	..	13	..	12	..	15	..	7	8	8	..	9	..	3	2	2	..	1	7	70	..	3	8	10	4
1879-80 ..	12	4	17	..	14	8	16	..	17	..	10	..	6	..	12	..	9	..	2	9	2	8	1	6	70	..	3	8	11	..
1880-81 ..	12	..	17	12	16	8	17	..	19	..	14	8	6	..	18	..	10	..	2	6	2	4	1	6	90	..	4	..	12	..
1881-82 ..	16	..	23	..	21	8	22	..	22	..	23	..	6	..	14	8	12	..	2	14	2	6	1	8	90	..	3	..	12	8

NOTE.—The figures for the first ten years are taken from a statement published by Government (Punjab Government No. 209 S. of 19th August 1872), and represent the average prices for the 12 months of each year. The figures for the last ten years are taken from Table No. XLVII of the Administration Report, and represent prices as they stood on the 1st January of each year.

Table No. XXVII, showing PRICE of LABOUR.

1	2	3	4	5	6	7	8	9	10	11	12	13
YEAR.	Wages of Labour per day.				Carts per day.		Camels per day.		Donkeys per score per day.		Boats per day.	
	Skilled.		Unskilled.		Highest	Lowest	Highest	Lowest	Highest	Lowest	Highest	Lowest
	Highest	Lowest	Highest	Lowest								
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.	
1868-69	0 8 0	0 4 0	0 4 0	0 2 0	2 0 0		0 6 0		3 4 0		Rates according to tonnage and distance.	
1873-74	0 10 0	0 6 0	0 4 0	0 2 0	2 0 0		0 8 0	0 6 0	5 0 0	1 4 0	4 0 0	1 0 0
1878-79	0 10 0	0 7 0	0 4 0	0 2 0	1 0 0	0 8 0	0 10 0	0 7 0	5 0 0	1 4 0	2 8 0	1 0 0
1879-80	0 10 0	0 7 0	0 4 0	0 2 0	1 0 0	0 8 0	0 10 0	0 7 0	5 0 0	1 4 0	2 8 0	1 0 0
1880-81	0 10 0	0 7 0	0 4 0	0 2 0	1 0 0	0 8 0	0 10 0	0 7 0	5 0 0	1 4 0	2 8 0	1 0 0
1881-82	0 10 0	0 7 0	0 4 0	0 2 0	1 0 0	0 8 0	0 10 0	0 7 0	5 0 0	1 4 0	2 6 0	1 0 0

NOTE.—These figures are taken from Table No. XLVIII of the Administration Report.

Table No. XXVIII, showing REVENUE COLLECTED.

1	2	3	4	5	6	7	8	9
YEAR.	Fixed Land Revenue.	Fluctuating and Miscellaneous Land Revenue.	Tribute.	Local rates.	Excise.		Stamps.	Total Collections.
					Spirits.	Drugs.		
1868-69	5,09,405	87,771	..	..	24,876	23,681	60,798	7,05,441
1869-70	5,23,807	82,689	..	..	19,840	21,597	64,118	7,11,560
1870-71	5,20,284	1,07,981	..	..	19,041	19,253	49,622	7,16,181
1871-72	5,15,199	1,25,725	..	33,530	22,485	23,343	68,257	7,88,539
1872-73	5,16,901	1,35,367	..	34,767	24,019	22,700	59,556	7,93,490
1873-74	5,22,697	1,45,950	..	35,042	23,759	19,841	70,448	8,37,737
1874-75	5,27,802	1,25,996	..	36,659	23,743	22,890	65,564	8,02,774
1875-76	5,15,186	1,23,482	..	39,186	26,456	22,188	75,810	8,02,508
1876-77	5,12,133	1,33,069	..	39,176	27,496	23,047	78,924	8,13,845
1877-78	5,18,578	1,33,911	..	40,042	29,452	25,043	84,682	8,31,688
1878-79	5,25,125	1,17,634	..	51,535	26,822	23,305	91,409	8,85,920
1879-80	5,52,418	1,53,879	..	55,425	28,671	20,837	90,704	9,01,934
1880-81	5,65,130	1,96,308	..	59,479	32,399	21,445	97,138	9,71,958
1881-82	5,61,052	1,84,302	..	59,241	30,350	20,341	98,122	9,53,469

NOTE.—These figures are taken from Table No. XLIV of the Revenue Report. The following revenue is excluded:— "Canal, Forests, Customs and Salt, Assessed Taxes, Fees, Cesses."

Table No. XXIX, showing REVENUE DERIVED from LAND.

1	2	3	4	5	6	7	8	9	10	11	12	13
YEAR.	Fixed land revenue (demand).	Fluctuating and miscellaneous land revenue (collections).	Fluctuating Revenue.					Miscellaneous Revenue.				
			Revenue of alluvial lands.	Revenue of waste lands brought under assessment.	Water advantage revenue.	Fluctuating assessment of river lands.	Total fluctuating land revenue.	Grazing dues.		Sale of wood from rukhs and forests.	Sajji.	Total miscellaneous land revenue.
								By enumeration of cattle.	By grazing leases.			
District Figures.												
Total of 5 years— 1868-69 to 1872-73	26,14,371	5,39,583	22,525	19,521	1,708	..	44,620	1,10,635	2,32,947	39,910	24,558	4,94,913
Total of 5 years— 1873-74 to 1877-78	26,61,213	6,61,656	25,252	37,606	..	..	63,746	36,855	4,17,560	30,265	36,606	5,97,913
1878-79	5,29,807	1,17,485	3,880	2,559	..	..	7,812	..	91,341	5,606	8,845	1,19,173
1879-80	5,67,072	1,53,825	..	2,958	..	..	44,362	..	84,383	11,823	9,634	1,09,168
1880-81	5,74,314	1,94,257	..	668	914	74,278	75,902	..	84,987	20,017	7,046	1,18,355
1881-82	5,72,506	1,84,302	..	528	2,766	73,266	76,560	..	80,318	10,984	7,226	1,07,542
Tahsil Totals for 5 years— 1877-78 to 1881-82.												
Tahsil Mooltan	6,37,294	1,46,144	1,177	3,625	966	43,001	60,524	..	49,678	16,949	6,560	85,613
" Shujabad	6,00,521	78,364	1,794	876	607	30,559	37,799	..	28,416	375	..	40,563
" Lodhran	6,28,726	1,70,782	1,592	128	684	71,448	82,285	..	88,070	1,907	..	88,177
" Mailsi	4,15,325	2,73,751	2,766	3,274	1,42[illegible]	19,270	65,145	..	1,74,453	10,150	19,590	2,09,206
" Sarai Sidhu	3,00,548	1,95,137	..	8,080		44,014	52,289	..	84,122	36,909	14,902	1,42,854

NOTE.—These figures are taken from Tables Nos. I and III of the Revenue Report.

Table No. XXXVIII, showing the working of DISPENSARIES.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
		Number of Patients treated.														
		Men.					Women.					Children.				
Name of Dispensary.	Class of Dispensary.	1877.	1878.	1879.	1880.	1881.	1877.	1878.	1879.	1880.	1881.	1877.	1878.	1879.	1880.	1881.
Mooltan ..	C. H.	5,889	6,866	5,647	4,771	6,050	1,657	2,385	1,703	2,436	3,042	1,326	1,934	1,233	1,348	1,749
Kahror ..	1st	4,158	3,539	3,408	3,190	4,157	860	687	752	905	948	562	447	493	473	917
Shujabad ..	2nd	4,751	4,807	4,164	4,686	6,255	1,733	1,714	1,537	1,900	2,444	1,604	1,947	1,072	2,121	2,493
Jalalpur ..	3rd	1,553	1,023	..	..	..	420	399	..	..	..	244	188	..	..	..
Sarai Sidhu	2nd	..	1,445	1,347	1,528	3,602	..	459	382	344	1,254	..	254	182	229	616
Lodhran ..	3rd	..	..	961	2,073	3,493	..	..	176	907	759	..	..	149	577	515
Total ..	..	16,351	17,700	15,527	16,248	23,557	4,670	5,644	4,550	6,492	8,447	3,736	4,770	3,729	4,748	6,290

		18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
		Total Patients.					In-door Patients.					Expenditure in Rupees.				
Name of Dispensary.	Class of Dispensary.	1877.	1878.	1879.	1880.	1881.	1877.	1878.	1879.	1880.	1881.	1877.	1878.	1879.	1880.	1881.
Mooltan ..	C. H.	8,822	11,185	8,583	8,555	10,841	541	694	583	501	530	6,220	5,348	6,019	5,760	5,983
Kahror ..	1st	5,580	4,702	4,653	4,568	6,022	509	336	301	402	306	1,213	1,034	983	950	1,197
Shujabad ..	2nd	8,088	8,468	7,373	8,707	11,192	185	185	229	192	274	1,604	1,299	1,368	1,213	1,239
Jalalpur ..	3rd	2,217	1,610	..	..	..	..	..	..	..	..	822	717	..	..	..
Sarai Sidhu	2nd	..	2,158	1,911	2,101	5,472	..	..	35	120	524	..	528	1,018	972	894
Lodhran ..	3rd	..	..	1,286	3,557	4,767	..	..	..	..	5	..	..	827	660	812
Total ..	..	24,707	28,123	23,806	27,486	38,294	1,235	1,215	1,098	1,215	1,639	9,858	8,926	10,814	9,555	10,125

NOTE.—These figures are taken from Tables Nos. II, IV, and V of the Dispensary Report.

Table No. XXXIX, showing CIVIL and REVENUE LITIGATION.

1	2	3	4	5	6	7	8	9
	Number of Civil Suits concerning				Value in rupees of Suits concerning *			
YEAR.	Money or movable property.	Rent and tenancy rights.	Land and revenue, and other matters.	Total.	* Land.	* Other matters.	* Total.	Number of Revenue cases.
1878 ..	4,965	129	1,243	6,337	17,234	2,44,280	2,61,514	5,904
1879 ..	5,414	274	1,112	6,800	32,209	3,11,806	3,44,015	5,294
1880 ..	5,755	172	797	6,724	38,538	3,34,236	3,72,774	8,108
1881 ..	5,155	126	603	5,884	55,234	4,06,350	5,21,584	8,074
1882 ..	5,168	52	1,049	6,269	72,296	3,97,863	4,70,159	8 [illegible]

NOTE.—These figures are taken from Tables Nos. VI and VII of the Civil Reports for 1878 to 18[illegible] of the Reports on Civil Justice for 1881 and 1882.

* Suits heard in Settlement courts are excluded from these columns, no details of the [illegible] available.

Table No. XL, showing CRIMINAL TRIALS.

1		2	3	4	5	6
DETAILS.		1878.	1879.	1880.	1881.	1882.
Persons tried.	Brought to trial	6,292	5,843	6,076	5,496	[illegible]
	Discharged	1,318	[illegible],276	1,539	1,8[illegible]3	1,597
	Acquitted	904	957	774	1,088	732
	Convicted	4,081	3,504	2,752	2,945	3,488
	Committed or referred	31	22	13	49	66
Cases disposed of.	Summons cases (regular)	..	..	..	1,585	1,603
	" (summary)	..	..	..	9	3
	Warrant cases (regular)	..	..	..	1,340	1,343
	" (summary)	..	..	..	18	19
	Total cases disposed of	3,969	3,466	3,049	2,952	3,019
Number of persons sentenced to	Death	4	2	3	2	4
	Transportation for life	2	1	..	..	..
	" for a term	1	..	..	..	..
	Penal servitude	..	..	..	..	..
	Fine under Rs. 10	2,907	2,496	1,994	1,961	1,8[illegible]
	" 10 to 50 rupees	575	314	248	430	521
	" 50 to 100 "	35	28	14	13	65
	" 100 to 500 "	3	..	4	3	7
	" 500 to 1,000 "	..	1	..	..	..
	Over 1,000 rupees	..	..	..	..	..
	Imprisonment under 6 months	437	390	460	449	573
	" 6 months to 2 years	274	338	278	284	243
	" over 2 years	80	44	26	10	39
	Whipping	192	137	139	195	118
	Find sureties of the peace	3	..	7	14	3
	Recognisance to keep the peace	40	23	23	16	..
	Give sureties for good behaviour	53	213	139	9[illegible]	7[illegible]2

NOTE.—These figures are taken from Statements Nos. III and IV of the Criminal Reports for 1878 to 1880, and Nos. II and V of the Criminal Reports for 1881 and 1882.

Table No. XLI, showing POLICE INQUIRIES.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Number of cases inquired into.					*Number of persons arrested or summoned.*					*Number of persons convicted.*				
Nature of offence.	1877	1878	1879	1880	1881	1877	1878	1879	1880	1881	1877	1878	1879	1880	1881
Rioting or unlawful assembly	16	8	11	8	19	81	57	53	100	248	62	33	36	87	93
Murder and attempts to murder	15	10	7	5	5	18	17	10	6	5	2	10	5	9	3
Total serious offences against the person	30	24	31	20	26	93	80	75	124	267	69	51	52	100	101
Abduction of married women	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total serious offences against property	500	499	489	402	354	189	222	239	259	294	144	263	180	159	153
Total minor offences against the person	184	130	113	58	58	253	192	156	99	85	198	146	105	63	67
Cattle theft	272	309	334	272	263	156	240	289	230	209	90	161	205	172	15[illegible]
Total minor offences against property	1,114	1,226	1,076	864	955	675	1,025	1,050	842	907	470	774	752	615	659
Total cognizable offences	1,921	1,959	1,767	1,497	1,467	1,352	1,711	1,647	1,425	1,659	909	1,234	1,156	1,033	1,0[illegible]
Rioting, unlawful assembly, affray	..	1	8	4	1	..	3	43	10	43	..	3	37	3	7
Offences relating to marriage	18	9	4	2	14	14	4	3	4	15	9	1	..	2	7
Total non-cognizable offences	163	156	152	99	137	305	238	203	138	239	208	199	146	104	1[illegible]
[illegible] of offences	2,084	2,115	1,929	1,506	1,604	1,657	1,949	1,850	1,563	1,898	1,177	1,433	1,302	1,137	1,[illegible]

NOTE.—These figures are taken from Statement A of the Police Report.

Table No. XXXIIIA, showing REGISTRATIONS.

1	2	3	4	5	6	7
	Number of Deeds registered.					
	1880-81.			1881-82.		
	Compulsory.	Optional.	Total.	Compulsory.	Optional.	Total.
Registrar Mooltan ..	48	2	50	26	1	27
Sub-Registrar Mooltan ..	959	324	1,283	771	292	1,063
" Mooltan Cantonment ..	24	28	52	55	37	92
" Shujabad ..	282	89	371	259	81	340
" Lodhran ..	107	42	149	131	47	178
" Mailsi ..	188	111	299	132	89	221
" Sarai Sidhu ..	60	34	94	79	34	113
Total of district ..	1,668	630	2,298	1,453	581	2,034

NOTE.—These figures are taken from Table No. I of the Registration Report.

Table No. XXXIV, showing LICENSE TAX COLLECTIONS.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
YEAR.	Number of Licenses granted in each Class and Grade. Class I. 1 Rs. 500	Class I. 2 Rs. 200	Class I. 3 Rs. 150	Class I. 4 Rs. 100	Class II. 1 Rs. 75	Class II. 2 Rs. 50	Class II. 3 Rs. 25	Class II. 4 Rs. 10	Class III. 1 Rs. 5	Class III. 2 Rs. 2	Class III. 3 Re. 1	Total number of licenses.	Total amount of fees.	Number of villages in which licenses granted.
1878-79	3	13	2	16	13	50	211	852	2,107	5,364	10,557	19,193	55,340	..
1879-80 ..	3	6	8	15	20	61	230	792	2,023	5,142	10,692	18,992	54,711	..
1880-81 ..	..	5	6	13	18	58	222	892	..	..	..	1,206	21,220	291
1881-82 ..	..	4	3	12	15	62	206	868	..	..	..	1,157	19,655	276
Tahsil details for 1881-82—														
Tahsil Mooltan ..	..	3	3	8	9	24	71	333	..	..	..	451	8,490	51
" Shujabad ..	..	1	..	2	2	5	27	111	..	..	..	148	2,585	27
" Lodhran ..	..	..	..	1	3	13	39	107	..	..	..	253	3,910	78
" Mailsi ..	..	..	..	..	1	2	28	119	..	..	..	150	2,065	61
" Sarai Sidhu ..	..	..	..	1	..	8	43	103	..	..	..	155	2,605	59

Table No. XXXV, showing EXCISE STATISTICS.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Fermented Liquors.					Intoxicating Drugs.						Excise Revenue from		
YEAR.	Number of central distilleries.	No. of retail shops. Country spirits.	No. of retail shops. European liquors.	Consumption in gallons. Rum.	Consumption in gallons. Country spirits.	No. of retail licenses. Opium.	No. of retail licenses. Other drugs.	Consumption in maunds. Opium.	Consumption in maunds. Charas.	Consumption in maunds. Bhang.	Consumption in maunds. Other drugs.	Fermented liquors.	Drugs.	Total.
1877-78	2	36	9	1,270	5,680	111	111	33	24	465	..	29,430	25,035	54,465
1878-79 ..	2	30	11	1,280	5,202	111	111	27	15	278	59	26,822	23,395	50,217
1879-80 ..	2	35	11	1,211	6,245	106	106	26	13	277	..	28,671	20,826	49,497
1880-81 ..	2	37	14	1,147	6,442	107	107	28	15	348	..	32,341	21,442	53,783
1881-82 ..	2	37	14	1,151	6,123	107	107	31	15	459	..	30,350	20,341	50,691
TOTAL ..	10	181	59	6,039	29,692	542	542	145	82	1,827	59	147,614	111,039	258,653
Average ..	2	36	12	1,208	5,938	108	108	29	16	365	12	29,523	22,208	51,731

NOTE.—These figures are taken from Tables Nos. I, II, VIII, IX, X, of the Excise Report.

Table No. XXXVI, showing DISTRICT FUNDS.

1	2	3	4	5	6	7	8	9	10	11
	Annual income in rupees.			*Annual expenditure in rupees.*						
YEAR.	Provincial rates.	Miscellaneous.	Total income.	Establishment.	District post, and arboriculture.	Education.	Medical.	Miscellaneous.	Public Works.	Total expenditure.
1874-75 ..	..	..	56,272	1,186	1,978	7,035	912	240	28,497	39,848
1875-76 ..	..	..	47,240	1,270	4,888	8,335	706	294	30,763	46,256
1876-77 ..	..	..	52,701	1,251	2,927	7,749	2,947	240	27,132	42,296
1877-78 ..	..	..	41,231	2,128	4,641	7,321	3,558	630	18,922	37,810
1878-79 ..	..	..	49,945	1,493	5,001	8,107	3,642	466	30,149	48,858
1879-80 ..	61,660	3,705	65,365	2,071	3,673	8,525	1,636	385	20,575	36,865
1880-81 ..	66,529	1,483	68,013	1,930	3,288	10,775	1,691	251	17,109	35,044
1881-82 ..	64,649	3,109	67,758	1,938	3,754	11,164	2,815	224	18,146	37,941

NOTE.—These figures are taken from Appendices A and B to the Annual Review of District Fund operations.

Table No. XXXVII, showing GOVERNMENT and AIDED SCHOOLS.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
	HIGH SCHOOLS.						MIDDLE SCHOOLS.						PRIMARY SCHOOLS.							
	ENGLISH.				VERNACULAR.		ENGLISH.				VERNACULAR.		ENGLISH.				VERNACULAR.			
YEAR.	*Government.*		*Aided.*		*Government.*		*Government.*		*Aided.*		*Government.*		*Government.*		*Aided.*		*Government.*		*Aided.*	
	Schools.	Scholars.	Schools.	Scholars.	Schools.	Scholars.	Schools.	Scholars.	Schools.	Scholars.	Schools.	Scholars.	Schools.	Scholars.	Schools.	Scholars.	Schools.	Scholars.	Schools.	Scholars.
	FIGURES FOR BOYS.																			
1877-78 ..	..	..	..	..	..	..	1	160	3	462	3	341	..	..	..	..	36	1,474	5	358
1878-79 ..	1	6	..	..	..	..	1	116	4	512	3	302	..	..	..	..	37	1,496	4	336
1879-80 ..	1	4	..	..	..	..	2	88	2	72	2	25	6	604	3	403	42	2,034	..	..
1880-81 ..	1	7	..	..	..	..	2	113	2	50	2	24	6	623	3	457	46	2,297	..	..
1881-82 ..	1	10	..	..	..	..	2	92	2	55	2	35	6	705	2	359	48	2,459	..	..
	FIGURES FOR GIRLS.																			
1877-78 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	5	73
1878-79 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	98
1879-80 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	121
1880-81 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	113
1881-82 ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	254

N. B.—Since 1879-80, in the case of both Government and Aided Schools, those scholars only who have completed the Middle School course are shown in the returns as attending High Schools, and those only who have completed the Primary School course are shown as attending Middle Schools. Previous to that year, boys attending the Upper Primary Department were included in the returns of Middle Schools in the case of Institutions under the immediate control of the Education Department, whilst in Institutions under District Officers, boys attending both the Upper and Lower Primary Departments were included in Middle Schools. In the case of Aided Institutions, a High School included the Middle and Primary Departments attached to it; and a Middle School, the Primary Department. Before 1879-80, Branches of Government Schools, if supported on the grant-in-aid system, were classed as Aided Schools; in the returns for 1879-80 and subsequent years they have been shown as Government Schools. Branches of English Schools, whether Government or Aided, that were formerly included amongst Vernacular Schools, are now returned as English Schools. Hence the returns before 1879-80 do not afford the means of making a satisfactory comparison with the statistics of subsequent years.

Indigenous Schools and Jail Schools are not included in these returns.

Table No. XLII, showing CONVICTS in GAOL.

1	2	3	4	5	6	7	8	9	10	11	12	13	14
YEAR.	*No. in gaol at beginning of the year.*		*No. imprisoned during the year.*		*Religion of convicts.*			*Previous occupation of male convicts.*					
	Males.	Females.	Males.	Females.	Musalman.*	Hindu.	Buddhist and Jain.	Official.	Professional.	Service.	Agricultural.	Commercial.	Industrial.
1877-78	608	14	820	39	1,116	211	..	37	..	43	728	..	..
1878-79	564	18	973	48	1,184	236	..	31	..	48	627	..	..
1879-80	794	22	1,020	30	623	50	..	31	7	..	430	7	..
1880-81	691	23	886	41	557	70	..	11	9	124	345	22	..
1881-82	657	21	928	31	542	90	..	15	5	12	410	81	..

	15	16	17	18	19	20	21	22	23	24	25	26
YEAR.	*Length of sentence of convicts.*							*Previously convicted.*			*Pecuniary results.*	
	Under 6 months.	6 months to 1 year.	1 year to 2 years.	2 years to 5 years.	5 years to 10 years.	Over 10 years and transportation.	Death.	Once.	Twice.	More than twice.	Cost of maintenance.	Profits of convict labour.
1877-78	756	314	289	64	39	18	1	63	23	10	29,723	4,188
1878-79	751	406	318	93	27	9	3	94	28	21	30,529	5,545
1879-80	187	253	165	82	23	4	..	87	23	12	44,762	6,550
1880-81	92	119	230	181	53	8	..	87	23	12	33,402	2,366
1881-82	53	150	169	224	60	8	1	64	16	10	34,688	8,252

NOTE.—These figures are taken from Tables Nos. XXVIII, XXIX, XXX, XXXI, and XXXVII of the Administration Report.

N.B.—The figures for columns 10, 13 and 14 for the years 1877-78 & 1878-79 are not given in Administration Report.

Table No. XLIII, showing the POPULATION of TOWNS.

1	2	3	4	5	6	7	8	9	10
Tahsil.	Town.	Total population.	Hindus.	Sikhs.	Jains.	Musalmans.	Other religions.	No. of occupied houses.	Persons per 100 occupied houses.
Mooltan ..	Mooltan ..	68,674	29,962	661	46	36,294	1,711	12,617	544
Shujabad ..	Shujabad ..	6,458	3,970	9	1	2,476	2	1,477	437
Lodhran	Jalalpur ..	3,875	1,613	5	..	2,257	..	622	623
Mailsi ..	Kahror ..	4,804	2,967	5	..	1,832	..	848	567
	Dunyapur ..	2,041	1,396		..	645	..	302	676
Sarai Sidhu ..	Talamba ..	2,231	1,282	2	..	947		369	604

NOTE.—These figures are taken from Table No. XX of the Census Report of 1881.

Table No. XLIV, showing BIRTHS and DEATHS for TOWNS.

1	2	3	4	5	6	7	8	9	10	11	12	13
TOWN.	Sex.	*Total population by the Census of*	*Total births registered during the year*					*Total deaths registered during the year*				
		1875.	1877.	1878.	1879.	1880.	1881.	1877.	1878.	1879.	1880.	1881.
Mooltan ..	Males ..	15,694	680	780	631	808	793	486	628	473	516	546
	Females	13,754	694	693	655	717	725	432	616	425	477	474
Mooltan Suburbs ..	Males ..	12,036	440	505	331	523	548	475	528	459	421	472
	Females	9,394	425	438	316	496	462	307	475	338	382	350

NOTE.—These figures are taken from Table No. LVII of the Administration Report.

Table No. XLV, showing MUNICIPAL INCOME.

1	2	3	4	5	6	7
NAME OF MUNICIPALITY.	Mooltan.	Shujabad.	Kahror.	Tulamba.	Jalalpur.	Dunyapur.
Class of Municipality ..	I.	III.	III.	III.	III.	III.
1870-71 ..	44,507	4,041	2,875	..	..	..
1871-72 ..	71,213	7,077	3,150	..	..	..
1872-73 ..	67,165	6,547	2,853	..	..	..
1873-74 ..	67,195	6,088	2,683	..	..	..
1874-75 ..	87,831	5,937	2,563	1,309	2,181	750
1875-76 ..	82,409	6,567	2,852	1,071	2,813	689
1876-77 ..	76,965	6,791	3,286	1,599	2,887	853
1877-78 ..	81,709	7,039	2,840	1,118	2,850	761
1878-79 ..	76,838	6,635	2,974	1,553	3,056	696
1879-80 ..	82,485	6,330	3,456	1,392	3,479	886
1880-81 ..	88,435	6,652	3,828	957	3,255	695
1881-82 ..	86,585	7,299	3,582	1,221	3,025	896

from Government as they stood in 1878-79.

10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Tahsil Shujabad.				*Tahsil Lodhran.*				*Tahsil Mailsi.*				*Tahsil Sarai Sidhu.*			
No. of estates.	No. of villages.	No. of holders or shareholders.	Gross area in acres.	No. of estates.	No. of villages.	No. of holders or shareholders.	Gross area in acres.	No. of estates.	No. of villages.	No. of holders or shareholders.	Gross area in acres.	No. of estates.	No. of villages.	No. of holders or shareholders.	Gross area in acres.
					..	..	..	..	..	..	..	1	1	1	2,530
			..	..	..	..	..	..	..	..	..	11	11	11	6,670
3	3	3	2,870	1	1	1	520	..	..	..	..	..	..	..	..
8	8	116	6,968	1	1	10	2,250	136	136	656	73,898	35	35	410	22,377
1	1	27	1,159	..	..	..	..	2	2	16	1,579	4	4	112	1,929
77	77	5,754	159,920	93	93	4,673	154,669	186	186	5,579	242,424	131	131	1,781	159,186
1	1	315	6,307	95	95	3,031	279,293	78	78	3,385	131,175	104	104	3,260	55,720
..	..	..	..	141	141	265	10,096	278	278	389	25,635	226	226	455	19,757
			..	1	1	1	243	2	2	4	387	2	2	3	475
8	8		11,708	12	12		62,657	65	65		875,924	17	17	..	313,295
98	98	6,215	188,410	344	344	7,981	509,728	747	747	10,229	1,351,022	531	531	6,063	891,847

No. XXXIII of the Revenue Report for 1878-79.

Table No. XVI, showing TENURES not held direct from Government as they stood in 1878-79.

1	2	3	4	5	6	7	8	9	10	11	12	13
	District Mooltan.		*Tahsil Mooltan.*		*Tahsil Shujabad.*		*Tahsil Lodhran.*		*Tahsil Mailsi.*		*Tahsil Sarai Sidhu.*	
NATURE OF TENURE.	No. of holdings.	Acres of land held.	No. of holdings.	Acres of land held.	No. of holdings.	Acres of land held.	No. of holdings.	Acres of land held.	No. of holdings.	Acres of land held.	No. of holdings.	Acres of land held.
A.—TENANTS WITH RIGHT OF OCCUPANCY.												
I. Paying rent in cash. (a) Paying the amount of Government revenue only to the proprietors.	48	1,055	27	230	..	..	4	41	..	..	17	784
(b) Paying such amount, plus a cash Malikanah	185	3,448	90	2,345	4	57	29	349	33	352	29	345
(c) Paying at stated cash rates per acre	3	29	..	..	..	..	..	..	3	29	..	..
(d) Paying lump sums (cash) for their holdings	18	77	..	..	..	..	..	..	18	77	..	..
Total paying rent in cash	254	4,609	117	2,575	4	57	33	390	54	458	46	1,129
II. Paying rent in kind. (a) Paying a stated share of the produce in kind. (1) Paying ½ produce and more	193	1,874	25	158	26	239	23	155	74	1,007	45	315
(2) ⅓ produce and less than ½ produce	1,297	18,634	239	4,295	187	4,001	448	4,291	302	5,392	121	715
(3) ¼ " " ⅓ "	268	4,366	42	410	11	445	51	265	92	2,193	72	1,053
(4) ⅕ " " ¼ "	296	3,748	88	843	..	..	12	317	150	1,575	46	1,213
(b) Paying a stated share of the produce, plus a cash contribution. (1) Share of produce ⅓ and more	51	779	35	483	..	..	7	135	9	161	..	..
(2) " " less than ⅓	45	685	32	475	..	..	6	107	7	103	..	..
Total paying rent in kind	2,150	30,086	461	6,604	224	4,685	547	5,270	634	10,231	284	3,296
GRAND TOTAL of Tenants with rights of occupancy	2,404	34,695	578	9,179	228	4,742	580	5,660	688	10,689	330	4,425
B.—TENANTS HOLDING CONDITIONALLY.												
II. For period on lease. (a) Written	23	193	23	193	..	..	..	..	..	..	1	5
III. Subject to village service and payment of rent	1	3	..	..	..	..	..	..	..	..	..	..
C.—TENANTS-AT-WILL.												
I. Paying in cash	445	3,874	62	364	18	299	358	2,669	11	27	1	15
II. Paying in kind. (a) ½ produce and more	8,509	89,167	1,083	19,349	26	239	652	8,665	5,063	47,728	1,685	18,186
(b) less than ½ produce	10,127	149,493	1,780	83,410	198	4,446	2,586	62,408	5,063	47,729	500	1,500
D.—PARTIES HOLDING AND CULTIVATING SERVICE GRANTS FROM PROPRIETORS FREE OF ALL REVENUE.												
II. Conditional on service	2	17	1	5	..	..	..	..	..	..	1	12
GRAND TOTAL OF TENURES	21,511	276,949	3,527	82,500	470	9,726	4,171	74,402	10,825	106,173	2,518	24,141

NOTE.—These figures are taken from Table No. XXXIV of the Revenue Report.

Table No. XIB, showing MONTHLY DEATHS from FEVER.

1	2	3	4	5	6	7
Month.	1877.	1878.	1879.	1880.	1881.	Total.
January ..	1,028	690	913	921	1,105	4,652
February ..	830	587	799	760	889	3,865
March ..	812	530	722	634	702	3,401
April ..	626	431	488	536	827	2,903
May ..	578	520	578	739	689	3,104
June ..	664	527	394	506	568	2,659
July ..	464	487	309	467	516	2,243
August ..	384	399	266	423	411	1,883
September ..	494	605	302	469	530	2,400
October ..	584	768	421	785	1,261	3,819
November ..	747	1,480	689	740	1,480	5,136
December ..	844	1,141	724	1,650	1,708	5,467
Total ..	8,050	8,165	6,600	8,030	10,687	41,532

Note.—These figures are taken from Table No. IX of the Sanitary Report.

Table No. XII, showing INFIRMITIES.

1	2	3	4	5	6	7	8	9
	Insane.		Blind.		Deaf and Dumb.		Lepers.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
All religions { Total ..	361	165	1,485	1,290	423	191	44	23
All religions { Villages ..	311	143	1,257	1,061	354	163	37	18
Hindus ..	68	25	284	232	61	34	6	1
Sikhs ..	1	...	...	...	...	...	...	...
Musalmans ..	292	140	1,200	1,058	361	157	38	22

Note.—These figures are taken from Tables Nos. XIV to XVII of the Census of 1881.

Table No. XIII, showing EDUCATION.

1	2	3	4	5	1	2	3	4	5
	Males.		Females.			Males.		Females.	
	Under instruction.	Can read and write.	Under instruction.	Can read and write.		Under instruction.	Can read and write.	Under instruction.	Can read and write.
All religions { Total ..	7,025	21,295	216	358	Christians ..	187	1,103	67	237
All religions { Villages ..	3,940	12,339	92	96	Tahsil Mooltan ..	3,073	8,637	141	300
Hindus ..	3,439	15,567	4	35	" Shujabad ..	983	2,379	17	15
Sikhs ..	49	315	..	5	" Lodhran ..	832	2,871	21	22
Jains ..	1	6	..	..	" Mailsi ..	1,432	4,550	32	17
Buddhists ..	...	...	...	..	" Sarai Sidhu ..	705	2,858	5	4
Musalmans ..	3,345	4,273	145	70					

Note.—These figures are taken from Table No. XIII of the Census of 1881.

Table No. XIV, showing detail of SURVEYED and ASSESSED AREA.

1	2	3	4	5	6	7	8	9	10	11	12
	Cultivated.				Uncultivated.						
	Irrigated.										
	By Government works.	By private individuals.	Unirrigated.	Total cultivated.	Grazing lands.	Culturable.	Unculturable.	Total uncultivated.	Total area assessed.	Gross assessment.	Unappropriated culturable waste, the property of Govt.
1868-69 ..	303,627	202,123	118,684	624,434	2,053	715,441	2,422,260	3,139,754	3,764,138	583,404	1,880,480
1873-74 ..	192,733	347,924	83,983	624,640	100,000	777,081	2,291,559	3,168,640	3,793,280	541,760	1,879,003
1878-79 ..	339,644	70,410	389,306	799,360	100,000	2,618,080	245,760	2,963,840	3,763,200	548,895	1,214,485
Tahsil details for 1878-79—											
Tahsil Mooltan ..	106,666	2,360	1,180	110,206	4,732	453,532	38,928	497,192	607,398	130,107	13,868
" Shujabad	62,211	6,106	5	68,322	..	127,408	10,330	137,738	206,060	113,306	12,358
" Lodhran ..	111,185	10,271	..	121,456		351,698	26,578	378,276	499,732	122,412	16,278
" Mailsi ..	44,342	851	387,558	432,751	95,268	719,882	80,579	895,729	1,328,480	115,325	693,414
" Sarai Sidhu	15,240	50,822	563	66,625	..	965,560	89,345	1,054,905	1,121,530	62,745	479,167

Note.—These figures are taken from Table No. VIII of the Administration Report, except the last column, which is taken from Table No. I of the same Report.

Table No. XV, showing TENURES held direct

1	2	3	4	5	6	7	8	9
	Whole District.				*Tahsil Mooltan.*			
NATURE OF TENURE.	No. of estates.	No. of villages.	No. of holders or shareholders.	Gross area in acres.	No. of estates.	No. of villages.	No. of holders or shareholders.	Gross area in acres.
A.—ESTATES NOT BEING VILLAGE COMMUNITIES, AND PAYING IN COMMON (ZAMINDARI).								
III.—*Paying 1,000 to 5,000 revenue.* (b). Held by individuals or families under the ordinary law.	1	1	1	2,539	...	...	...	
IV.—*Paying 1,000 rupees and under.* (a). Held by individuals under the law of primogeniture.	11	11	11	6,670				
IV.—*Paying 1,000 rupees and under.* (b). As above ..	41	41	41	45,334	37	37	37	42,444
PROPRIETARY CULTIVATING VILLAGE COMMUNITIES.								
B.—*Zamindari* .. Paying the revenue and holding the land in common.	183	183	1,310	112,109	3	3	128	6,718
C.—*Pattidari* .. The land and revenue being divided upon ancestral or customary shares, subject to succession by the law of inheritance.	9	9	468	5,073	2	2	313	427
D.—*Bhayachara*.. In which possession is the measure of right in all lands.	634	634	22,042	937,807	147	147	4,255	221,608
E.—*Mixed or imperfect pattidari or bhayachara.* In which the lands are held partly in severalty and partly in common, the measure of right in common land being the amount of the share or the extent of land held in severalty.	339	339	14,675	771,793	61	61	4,484	230,295
F.—*Grantees of Government not falling under any previous class, and paying revenue direct to Government in the position of :—*								
I.—*Proprietors*, including individuals rewarded for service or otherwise, but not purchasers of Government waste.	3	3	3	2,500	3	3	3	1,306
II.—*Lessees*	758	758	1,204	69,313	115	115	155	18,8[illegible]
G.—*Landholders who have redeemed the revenue and are not members of any village community nor included in any previous class.*	6	6	9	1,574	1	1	1	169
I.—*Government waste, reserved or unassigned* ..	136	136	..	1,773,281	34	34	..	209,0[illegible]
TOTAL ..	2,121	2,121	39,854	3,727,998	401	401	6,366	708,[illegible]

NOTE.—These figures are taken fr[om] Tab[le]

Table No. XLVA, showing MANUFACTURES for MOOLTAN CITY.

1	2	3	4	5	6	7
	Silk.	Cotton.	Wool.	Other Fabrics.	Paper.	Wood.
Number of mills and large factories ..	..	..	..	..	..	..
Number of private looms or small works ..	500	602	6	54	19	16
Number of workmen in large works. Male ..	..	..	..	..	..	..
Number of workmen in large works. Female ..	..	..	..	..	..	..
Number of workmen in small works or independent artisans.	800	704	12	102	15	32
Value of plant in large works ..	..	..	..	..	..	..
Estimated annual out-turn of all works in rupees.	5,44,500	87,750	1,100	16,443	1,620	13,054

	8	9	10	11	12	13
	Iron.	Brass and copper.	Buildings.	Dyeing and manufacturing of dyes.	Leather.	Pottery, common and glazed.
Number of mills and large factories ..	..	..	..	..	..	..
Number of private looms or small works ..	60	54	..	122	130	60
Number of workmen in large works. Male ..	..	..	..	..	..	..
Number of workmen in large works. Female ..	..	..	..	..	..	..
Number of workmen in small works or independent artisans.	128	80	240	200	205	180
Value of plant in large works ..	..	..	..	..	..	..
Estimated annual out-turn of all works in rupees.	33,520	41,533	28,800	43,396	59,947	7,6[illegible]0

	14	15	16	17	18	19
	Oil-pressing and refining.	Pashmina and shawls.	Carpets.	Gold, silver, and jewellery.	Other manufactures.	Total.
Number of mills and large factories ..	..	..	..	..	..	..
Number of private looms or small works ..	69	..	40	155	42	1,940
Number of workmen in large works. Male ..	..	..	..	..	..	..
Number of workmen in large works. Female ..	..	..	..	..	..	..
Number of workmen in small works or independent artisans.	110	..	45	210	89	3,145
Value of plant in large works ..	..	..	..	..	..	..
Estimated annual out-turn of all works in rupees.	55,696	..	18,642	1,62,086	10,525	11,26,248

NOTE.—These figures are taken from the Report on Internal Trade and Manufactures for 1881-82.

Table No. XLVI, showing DISTANCES.

a. Tahsils.
b. Police-out posts.
c. Police-station.
R. S. Railway station.
F. Ferries.

	Moolta	Sher Shah	Shujabad	Gawen	Jalalpur	Kureshiwala	Lodhran	Basti Maluk	Makhdoom Rashid	Tibba	Dunyapur	Kahror	Mailsi	Ludan	Mittru	Mian ki Pakhi	Channu	Talamba	Sarai Sidhu	Kabirwala	Khanewala	Rawan	Matti Tal	Adamwahan	Makhdumpur	Sahuka	Shor Shah	Fazil Shah	Sarai Sidhu
Moolta, a, c, R. S.																													
Sher Shah, b, R. S.	10																												
Shujabad, a, b, R. S.	24	15																											
Gawen, b	37	30	13																										
Jalalpur, c	51	41	26	14																									
Kureshiwala, b	62	54	39	27	13																								
Lodhran, a, b, R. S.	53	47	29	34	24	13																							
Basti Maluk, b	23·6	23	14	20	30	29	24																						
Makhdoom Rashid, b	14	24	28	38	47	47	40	20																					
Tibba, b	30	35	41	45	51	46	35	28	10																				
Dunyapur, b	30	35	26	30	36	31	20	15	21	13																			
Kahror, c	40	51	42	44	42	29	18	29	37	31	16																		
Mailsi, a, c	48	61	52	56	61	48	37	39	37	22	26	20																	
Ludan, c	71·4	78	77	81	86	79	62	64	55	40	51	44	20																
Mittru, b	40	49	51	55	61	56	45	38	29	13	25	34	15	29															
Mian ki Pakhi, c	69	71	73	77	88	78	67	60	47	22	47	53	30	21	23														
Channu, R. S.	58	69	83	95	109	106	95	81	50	51	66	72	50	40	50	18													
Talamba, c	67	65	78	85	95	105	95	71	47	45	63	83	62	53	43	29	9												
Sarai Sidhu, a, c	42	51	65	77	91	93	87	63	38	45	58	74	69	63	52	14	25	18											
Kabirwala, c	31·2	37	51	63	77	78	73	49	24	29	44	68	45	70	37	51	22	27	15										
Khanewala, R. S.	32	41	55	67	81	82	77	58	26	22	37	53	38	67	28	48	23	26	21	7									
Rawan, b	18	24	38	50	64	65	60	36	17	28	26	50	48	77	51	70	48	36	27	13	20								
Matti Tal, b	16·4	30	48	57	79	85	65	42	19	29	40	57	51	70	41	45	40	47	31	6	24	6							
Adamwahan, b	59	52	37	37	29	16	6	29	45	40	35	23	42	67	60	72	92	100	92	78	85	65	65						
Makhdumpur, b	51·2	48	62	74	88	89	84	60	35	40	55	65	50	69	82	40	21	12	10	12	15	24	21	79					
Sahuka, F.	89	99	97	101	106	93	83	84	72	60	71	64	45	20	81	21	51	59	75	72	69	82	82	79	61				
Sher Shah, F.	9	1	18	30	42	55	46	23	34	40	26	53	82	79	50	72	79	66	52	98	42	25	81	64	64	101			
Fazil Shah, F.	55	47	61	73	87	87	83	59	37	52	58	78	58	77	50	58	39	30	14	90	20	28	23	88	85	59	48		
Sarai Sidhu, F.	45	53	67	79	93	94	89	65	40	45	59	76	61	65	53	46	27	13	2	16	25	25	23	100	49	54	50	14	
[illegible]	[illegible]	[illegible]	[illegible]	57	101	102	72	[illegible]	40	51	65	[illegible]	49	42	60	30	11	2	13	25	57	58	31	102	14	61	69	32	15

Table No. IX, showing MAJOR CASTES and TRIBES.

1	2	3	4	5	6	7	8	9	10
Serial No. in Census Table No. VIIIA.	Caste or tribe.	Total Numbers.			Males, by religion.				Proportion per mille of population.
		Persons.	Males.	Females.	Hindu.	Sikh.	Jain.	Musalman	
	Total population ..	551,964	304,517	247,447	62,942	1,480	24	238,591	1,000
18	Biloch ..	18,547	10,153	8,394	..	..	..	10,158	34
6	Pathan ..	9,067	5,423	3,644	..	..	..	5,423	16
1	Jat ..	102,952	58,183	44,769	490	355	..	57,338	187
2	Rajput ..	59,627	32,811	26,816	539	25	..	32,247	108
58	Khokhar ..	7,696	4,196	3,500	..	..	..	4,196	14
77	Khairal ..	2,492	1,397	1,095	..	..	..	1,397	5
7	Arain ..	23,981	12,043	11,938	2	..	..	12,041	43
51	Mahtam ..	4,193	2,219	1,974	727	26	..	1,466	8
17	Shekh ..	12,649	7,092	5,557	6	1	..	7,085	23
37	Mughal ..	4,601	2,486	2,115	..	..	..	2,486	8
3	Brahman ..	4,183	2,225	1,958	2,135	22	2	66	8
24	Saiyad ..	8,908	4,848	4,060	..	..	..	4,848	16
21	Nai ..	6,035	3,324	2,711	42	4	..	3,278	11
25	Mirasi ..	7,510	4,078	3,432	4	..	..	4,074	14
16	Khatri ..	9,798	5,640	4,158	4,998	59	..	583	18
10	Arora ..	76,842	42,877	33,965	41,761	314	..	802	139
44	Khojah ..	5,640	2,998	2,642	..	..	..	2,998	10
85	Od ..	3,459	1,884	1,575	1,881	..	..	3	6
4	Chuhra ..	29,489	15,933	13,556	5,088	87	..	10,758	53
19	Mochi ..	16,596	8,996	7,600	2	..	..	8,994	30
9	Julaha ..	23,753	12,923	10,830	8	..	..	12,915	43
28	Machhi ..	9,610	5,218	4,392	1	..	..	5,217	17
42	Mallah ..	6,011	3,182	2,829	8	..	..	3,174	11
22	Lohar ..	2,768	1,619	1,149	89	100	..	1,430	5
11	Tarkhan ..	11,915	6,488	5,427	110	163	..	6,215	22
13	Kumhar ..	13,716	7,431	6,285	13	4	..	7,414	25
59	Charhoa ..	11,452	6,122	5,330	26	..	..	6,096	21
38	Qassab ..	5,914	3,187	2,727	..	..	..	3,187	11

Note.—These figures are taken from Table No. VIIIA of the Census of 1881.

Table No. IXA, showing MINOR CASTES and TRIBES.

1	2	3	4	5
Serial No. in Census Table No. VIIIA.	Caste or tribe.	Persons.	Males.	Females
5	Chamar	1,946	1,182	764
8	Gujar	604	334	270
12	Awan	2,399	1,493	906
14	Banya	562	303	259
27	Ahir	887	491	396
30	Sunar	2,044	1,064	980
33	Kamboh	687	365	322
35	Faqir, miscellaneous & unspecified	2,324	1,313	1,011
40	Jogi	691	424	267
48	Bharai	930	500	430
56	Kalal	580	317	263
61	Darzi	532	294	238
69	Bhatia	1,995	1,081	914
70	Ulama	2,211	1,195	1,016
76	Nungar	2,303	1,238	1,065
79	Dadpotra	1,315	737	578
93	Bhatyara	1,964	1,060	904
96	Kanchan	1,003	456	547
99	Kori	578	349	229
107	Jhabel	1,868	982	886
117	Pakhiwara	727	393	334
141	Bhand	506	281	225
144	Untwal	794	427	367

Note.—These figures are taken from Table No. VIIIA of the Census of 1881.

Table No. X, showing CIVIL CONDITION.

1	2	3	4	5	6	7	8
	DETAILS.	SINGLE.		MARRIED.		WIDOWED.	
		Males.	Females.	Males.	Females.	Males.	Females.
Actual figures for religions.	All religions	176,047	103,639	110,585	108,046	17,885	35,769
	Hindus	34,868	17,876	24,097	21,898	3,977	9,545
	Sikhs	646	213	764	322	70	70
	Jains	12	7	9	10	3	6
	Buddhists	..	..	..	..	..	..
	Musalmans	139,321	85,329	85,457	85,669	13,513	26,312
	Christians	1,173	204	228	192	20	29
Distribution of every 10,000 souls of each age.	All ages	5,781	4,189	3,631	4,806	537	1,445
	0—10	9,991	9,956	9	43	..	1
	10—15	9,664	8,151	330	1,818	6	31
	15—20	8,155	2,583	1,789	7,311	55	156
	20—25	5,811	548	4,023	9,078	166	374
	25—30	3,701	195	5,976	9,090	322	715
	30—40	1,949	127	7,395	8,292	656	1,581
	40—50	1,119	101	7,638	6,319	1,243	3,580
	50—60	855	90	7,238	4,195	1,907	5,715
	Over 60	822	91	5,741	1,873	3,437	8,035

NOTE.—These figures are taken from Table No. VI of the Census Report.

Table No. XI, showing BIRTHS and DEATHS.

1	2	3	4	5	6	7	8	9	10
YEARS.	TOTAL BIRTHS REGISTERED.			TOTAL DEATHS REGISTERED.			TOTAL DEATHS FROM		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Cholera.	Small-pox.	Fever.
1877	..	..	..	6,610	5,069	11,679	..	475	8,050
1878	..	..	..	7,207	5,576	12,783	..	1,639	8,155
1879	..	..	..	5,401	3,777	9,178	2	235	6,600
1880	8,531	6,814	15,345	6,529	5,163	11,692	..	203	8,036
1881	9,481	7,884	17,365	8,096	6,748	14,844	..	250	10,637

NOTE.—These figures are taken from Tables Nos. I, II, VII, VIII, and IX of the Sanitary Report.

Table No. XIA, showing MONTHLY DEATHS from ALL CAUSES.

1	2	3	4	5	6	7
MONTH.	1877.	1878.	1879.	1880.	1881.	Total
January	1,393	1,067	1,275	1,218	1,520	6,473
February	1,158	948	1,014	1,044	1,238	5,402
March	1,107	919	976	890	1,036	4,928
April	888	781	640	784	1,117	4,210
May	898	906	757	1,032	962	4,555
June	951	983	549	757	857	4,047
July	666	833	467	830	835	3,631
August	623	770	486	740	697	3,298
September	806	982	483	791	855	3,917
October	903	1,123	646	1,185	1,705	5,517
November	1,091	1,927	963	1,048	1,854	6,883
December	1,195	1,594	980	1,423	2,168	7,360
Total	11,679	12,783	9,178	11,692	14,844	60,176

NOTE.—These figures are taken from Table No. III of the Sanitary Report.

Table No. XXX, showing ASSIGNED LAND REVENUE.

1	2	3	4	5	6	7	8	9	10	11
	Total Area and Revenue Assigned.								Period of Assignment.	
Tahsil.	*Whole Villages.*		*Fractional parts of Villages.*		*Plots.*		*Total.*		*In perpetuity.*	
	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.
Mooltan ..	15,740	7,498	7,323	4,477	3,842	2,741	26,905	14,716	20,017	10,465
Shujabad ..	1,792	275	1,374	487	332	259	3,498	[illegible]	3,393	952
Lodhran ..	..	..	..	..	624	487	624	487	500	447
Mailsi ..	9,085	2,510	2,976	471	1,615	566	13,676	3,547	1,156	404
Sarai Sidhu ..	101	85	3,668	687	2,098	3,177	5,867	3,949	274	164
Total District ..	26,718	10,368	15,341	6,122	8,511	7,230	50,570	23,720	25,440	12,432

1	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	Period of Assignment.—*Concluded.*								No. of Assignees.					
Tahsil.	*For one life.*		*For more lives than one.*		*During maintenance of Establishment.*		*Pending orders of Government.*							
	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.	Area.	Revenue.	In perpetuity.	For one life.	For more lives than one.	During maintenance.	Pending orders.	Total.
Mooltan ..	6,555	3,956	..	..	333	295	..	..	60	28	..	10	..	98
Shujabad ..	104	69	..	..	1	..	..	..	47	11	..	7	..	65
Lodhran ..	..	..	..	..	124	40	..	..	28	..	..	18	..	46
Mailsi ..	12,258	3,044	..	..	262	99	..	..	2	20	..	27	..	49
Sarai Sidhu ..	1,093	347	3,490	2,721	910	717	..	..	4	11	133	12	1	161
Total District ..	20,010	7,416	3,490	2,721	1,630	1,151	..	..	141	70	133	74	1	419

Note.—These figures are taken from Table No. XII of the Revenue Report of 1881-82.

Table No. XXXI, showing BALANCES, REMISSIONS and TAKAVI.

Year.	*Balances of land revenue in rupees.*		Reductions of fixed demand on account of bad seasons, deterioration, &c., in rupees.	Takavi advances in rupees.
	Fixed revenue.	Fluctuating and miscellaneous revenue.		
1868-69 ..	5,658	..	112	4,600
1869-70 ..	4,754	..	328	10,150
1870-71 ..	5,161	..	5	800
1871-72 ..	3,643	..	10,890	10,945
1872-73 ..	2,969	..	..	1,880
1873-74 ..	4,479	..	416	1,259
1874-75 ..	5,910	..	671	472
1875-76 ..	20,348	585	671	251
1876-77 ..	22,650	1,996	129	1,430
1877-78 ..	15,497	525	362	2,145
1878-79 ..	6,739	..	523	1,127
1879-80 ..	15,209	2,001	..	520
1880-81 ..	12,960	..	54	1,502
1881-82 ..	11,965	..	213	1,600

Note.—These figures are taken from Tables Nos. I, II, III, and XVI of the Revenue Report.

Table No. XXXII, showing SALES and MORTGAGES of LAND.

1	2	3	4	5	6	7	8	9	10
	Sales of Land.						Mortgages of Land.		
	Agriculturists.			Non-Agriculturists.			Agriculturists.		
YEAR.	No. of cases.	Area of land in acres.	Purchase money.	No. of cases.	Area of land in acres.	Purchase money.	No. of cases.	Area of land in acres.	Mortgage money.
District Figures.									
Total of 6 years—1868-69 to 1873-74 ..	1,233	44,392	5,68,582	..	..	..	739	52,949	4,82,2[illegible]
Total of 4 years—1874-75 to 1877-78 ..	840	22,590	4,65,120	450	11,027	3,15,117	598	25,930	[illegible]
1878-79 ..	383	12,002	1,23,236	155	7,578	70,534	295	13,706	1,38,276
1879-80 ..	412	7,691	1,25,662	145	3,792	62,630	322	11,553	1,12,438
1880-81 ..	272	6,628	1,24,697	62	1,849	32,564	286	16,812	1,51,499
1881-82 ..	304	8,095	1,50,195	135	5,116	87,715	236	6,711	[illegible]
Tahsil Totals for 5 years—1877-78 to 1881-82.									
Tahsil Mooltan ..	303	6,973	1,25,699	200	7,992	1,31,517	198	6,260	98,850
" Shujabad ..	306	4,701	1,84,827	56	975	86,336	454	8,068	2,84,147
" Lodhran ..	493	7,913	1,23,478	289	8,947	65,434	328	6,044	98,082
" Mailsi ..	890	17,514	1,52,259	128	7,666	64,571	257	28,318	1,55,4[illegible]
" Sarai Sidhu ..	173	4,850	39,285	56	1,293	19,304	104	4,336	39,561

1	11	12	13	14	15	16	17	18	19
	Mortgages of Land.—Concluded.			Redemptions of Mortgaged Land.					
	Non-Agriculturists.			Agriculturists.			Non-Agriculturists.		
YEAR.	No. of cases.	Area of land in acres.	Mortgage money.	No. of cases.	Area of land in acres.	Mortgage money.	No. of cases.	Area of land in acres.	Mortgage money.
District Figures.									
Total of 6 years—1868-69 to 1873-74 ..	..	..	..	..	..	..	..	..	..
Total of 4 years—1874-75 to 1877-78 ..	583	16,654	2,69,311	81	5,750	30,901	5	156	1,974
1878-79 ..	240	7,154	77,780	14	264	2,660	7	174	2,250
1879-80 ..	242	7,099	92,159	88	1,220	15,083	12	810	2,946
1880-81 ..	165	4,611	91,522	87	1,008	19,691	7	906	10,453
1881-82 ..	249	9,856	1,67,499	38	2,448	12,859	39	2,635	36,415
Tahsil Totals for 5 years—1877-78 to 1881-82.									
Tahsil Mooltan ..	447	15,320	2,45,495	26	943	6,312	41	2,039	54,516
" Shujabad ..	117	1,737	85,315	37	661	19,236	5	120	1,740
" Lodhran ..	197	2,971	49,174	19	968	8,107	5	182	1,660
" Mailsi ..	139	8,864	56,316	48	3,509	24,883	12	588	6,847
" Sarai Sidhu ..	188	5,877	68,212	18	1,060	6,422	5	235	3,164

Note.—These figures are taken from Tables Nos. XXXV and XXXV B of the Revenue Report. No details for transfers by agriculturists and others, and no figures for redemption are available before 1874-75. The figures for earlier years include *all* sales and mortgages.

Table No. XXXIII, showing SALE of STAMPS and REGISTRATION of DEEDS.

1	2	3	4	5	6	7	8	9	10	11	12	13
	Income from Sale of Stamps.				Operations of the Registration Department.							
	Receipts in rupees.		*Net income in rupees.*		*No. of deeds registered.*				*Value of property affected, in rupees.*			
YEAR.	Judicial.	Non-judicial.	Judicial.	Non-judicial.	Touching immovable property.	Touching movable property.	Money obligations.	Total of all kinds.	Immovable property.	Movable property.	Money obligations.	Total value of all kinds.
1877-78 ..	59,375	18,294	58,520	17,749	1,148	266	224	1,638	6,41,293	13,646	91,873	7,46,8[illegible]
1878-79 ..	65,456	25,956	56,696	24,811	1,373	200	222	1,795	7,44,316	5,920	1,11,371	[illegible]
1879-80 ..	62,076	28,628	55,189	27,146	1,598	56	160	2,029	9,62,740	12,877	60,027	[illegible]
1880-81 ..	64,104	33,054	58,123	31,259	1,850	60	178	2,298	12,[illegible]7,435	25,872	1,14,813	[illegible]
1881-82 ..	67,181	30,941	60,556	29,350	1,821	44	141	2,034	10,10,117	22,506	71,088	[illegible]

Note.—These figures are taken from Appendix A of the Stamp and Tables Nos. II and III of the Registration Report.

Table No. XVII, showing GOVERNMENT LANDS.

1	2	3	4	5	6	7	8	9
			Acres held under cultivating leases,		*Remaining acres.*			
	No. of estates.	Total acres.	Cultivated.	Uncultivated.	Under Forest Department.	Under other Departments.	Under Deputy Commissioner.	Average yearly income, 1877-78 to 1881-82.
Whole District ..	282	1,827,420	589	3,865	109,913	..	1,723,053	116,737
Tahsil Mooltan ..	54	262,661	25	400	..	..	262,236	..
,, Shujabad ..	8	12,258	19	279	..	..	11,960	..
,, Lodhran ..	21	86,113	190	786	27 134	..	58,003	..
,, Mailsi ..	110	742,199	150	2,400	49,728	..	689,921	..
,, Sarai Sidhu ..	89	734,189	205	..	33,051	..	700,933	..

NOTE.—These figures are taken from Table No. IX of the Revenue Report of 1881-82.

Table No. XIX showing LAND ACQUIRED by GOVERNMENT.

Purpose for which acquired.	Acres acquired.	Compensation paid, in rupees.	Reduction of revenue, in rupees.
Roads	1,376	11,475	2,570
Canals	943	24,533	771
State Railways	1,143	51,277	493
Guaranteed Railways	911	29,412	386
Miscellaneous	1,572	3,92,395	2,293
Total ..	5,945	5,09,112	6,513

NOTE.—These figures are taken from Table No. XI of the Revenue Report.

Table No. XX, showing ACRES UNDER CROPS.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
YEARS.	Total.	Rice.	Wheat.	Jawar.	Bajra.	Makai.	Jau.	Gram.	Moth.	Poppy.	Tobacco.	Cotton.	Indigo.	Sugarcane.	Vegetables.
1873-74..	382,682	9,817	171,830	57,935	14,793	165	10,985	6,140	446	72	1,880	19,484	39,576	3,340	1,771
1874-75..	428,824	10,152	189,280	57,119	12,564	168	11,791	6,955	406	62	1,639	24,203	44,572	4,290	18,585
1875-76..	419,365	9,931	189,027	56,931	13,353	140	11,755	7,812	406	41	1,811	22,794	40,006	3,764	18,205
1876-77..	441,649	9,806	186,040	55,356	9,129	142	11,832	8,404	154	25	1,839	16,550	75,364	3,726	29,239
1877-78..	491,461	7,932	236,122	49,480	7,670	152	8,346	11,366	483	46	1,568	33,875	50,249	3,388	16,088
1878-79..	486,500	9,488	211,662	44,999	6,674	125	7,094	4,616	410	34	1,461	32,045	46,727	4,027	15,327
1879-80..	454,112	10,610	225,810	50,209	9,015	168	10,619	9,405	736	17	1,400	33,635	18,727	5,476	11,753
1880-81..	474,625	15,447	210,728	52,281	12,760	371	8,973	9,173	946	24	1,426	33,816	37,529	4,601	679
1881-82..	480,955	15,998	209,183	53,605	13,254	313	7,460	8,303	305	35	1,624	35,448	49,571	4,896	18,284

NAME OF TAHSIL.	TAHSIL AVERAGES FOR THE FIVE YEARS, FROM 1877-78 TO 1881-82.														
Mooltan..	121,602	4,864	44,483	12,672	5,903	208	2,616	2,457	342	2	439	12,096	6,941	286	7,159
Shujabad,	79,680	5,018	25,839	4,583	918	2	650	411	54	..	111	5,880	14,710	4,180	295
Lodhran,	86,801	1,194	51,060	7,805	1,137	15	1,806	680	17	5	364	5,062	5,480	3	304
Mailsi ..	124,987	628	54,990	20,848	1,712	..	1,040	2,238	43	16	304	8,701	13,315	5	4,214
Sarai Sidhu ..	63,561	191	40,639	4,257	115	..	2,386	2,806	110	8	278	2,025	115	3	848
TOTAL ..	467,581	11,895	216,901	50,115	9,875	225	8,498	8,573	566	31	1,496	33,764	40,561	4,477	12,820

NOTE.—These figures are taken from Table No. XLIV of the Administration Report.

Table No. XXV, showing RIVER TRAFFIC.

1	2	3	4	5	6
Trade.			*Average duration of Voyage in days.*		
From	To	Principal Merchandise carried.	Summer, or floods.	Winter or low water.	Distance in miles.
Sakkar ..	Ferozepore ..	Iron and sajji ..	90	120	400
Ferozepore ..	Sakkar ..	Wheat, gram, til, rope and wool ..	30	45	400
Do. ..	Kotri ..	Do. Do. ..	40	50	600
Aknur ..	Mithankot ..	Grain of all kinds, sugar, salt, spices, ghi, country cloth, silks and wool,	20	30	450
Mithankot ..	Mooltan ..	Dhan, rice, dhanya, peas, string, sajji, zira, ajwain, methra ..	30	60	120
Wazirabad ..	Do. ..	Wheat, gur, ghi, country cloth, wool cotton, kupas, horns, halela, balela, awla, sarna, timber ..	20	30	130
Ramnagar ..	Do. ..	Do. Do. Do. ..	18	25	210
Pindi Bhattian ..	Do. ..	Do. Do. Do. ..	14	20	180
Wazirabad ..	Mithankot ..	Do. Do. Do. ..	25	40	550
Ramnagar ..	Do. ..	Do. Do. Do. ..	22	36	330
Pindi Bhattian ..	Do. ..	Do. Do. Do. ..	18	30	390
Mooltan ..	Wazirabad ..	Iron, cocoanuts, dates, black pepper, munj, sajji ..	30	45	290
Do. ..	Ramnagar ..	Do. Do. ..	24	40	210
Do. ..	Pindi Bhattian	Do. Do. ..	21	35	190
Mithankot ..	Wazirabad ..	Do. Do. ..	50	60	850
Do. ..	Ramnagar ..	Do. Do. ..	45	52	380
Do. ..	Pindi Bhattian	Do. Do.	40	45	580
Jhelam ..	Mooltan ..	Grain and oil seeds ..	20	35	25
Do. ..	Sakkar ..	Do. ..	45	60	500
Do. ..	Kotri ..	Do. ..	60	93	700

NOTE.—These figures are taken from pages 759, 760 of the Famine Report.

Table No. V, showing the DISTRIBUTION of POPULATION.

1		2	3	4	5	6	7
		District	Tahsil. Mooltan.	Tahsil. Shujabad.	Tahsil. Lodhran.	Tahsil. Mailsi.	Tahsil Sarai Sidhu.
Total square miles		5,880	949	322	781	2,076	1,752
Cultivated square miles		1,249	172	107	190	676	104
Culturable square miles		4,247	718	199	549	1,274	1,509
Square miles under crops (average 1877 to 1881)		730	190	110	136	195	99
Total population		551,964	170,610	61,622	98,203	141,517	80,012
Urban population		88,083	68,674	6,458	3,875	6,845	2,281
Rural population		463,881	101,936	55,164	94,328	134,672	77,731
Total population per square mile		94	180	191	126	68	46
Rural population per square mile		79	108	171	121	65	44
Towns & Villages.	Over 10,000 souls	1	1	..	..	..	..
	5,000 to 10,000	1	..	1	..	..	..
	3,000 to 5,000	6	1	1	2	1	1
	2,000 to 3,000	11	3	2	4	2	..
	1,000 to 2,000	88	19	17	18	23	11
	500 to 1,000	189	38	22	40	54	35
	Under 500	997	225	37	115	368	252
	Total	1,293	287	80	179	448	299
Occupied houses	Towns	16,235	12,617	1,477	622	1,150	369
	Villages	77,364	18,894	10,824	18,291	23,363	10,992
Unoccupied houses	Towns	7,495	5,730	589	288	645	243
	Villages	16,004	4,072	1,652	2,189	6,069	2,072
Resident families	Towns	24,264	19,422	1,659	912	1,716	555
	Villages	91,583	21,183	11,909	20,075	22,734	15,592

NOTE.—These figures are taken from Tables Nos. I and XVIII of the Census of 1881, except the cultivated, culturable and crop areas, which are taken from Tables Nos. I and XLIV of the Administration Report.

Table No. VI, showing MIGRATION.

1	2	3	4	5	6	7	8	9	10
DISTRICTS.	Immigrants.	Emigrants.	MALES PER 1,000 OF BOTH SEXES.		DISTRIBUTION OF IMMIGRANTS BY TAHSILS.				
			Immigrants.	Emigrants.	Mooltan.	Shujabad.	Lodhran.	Mailsi.	Sarai Sidhu.
Amritsar	1,532	148	728	676	947	98	257	151	84
Sialkot	1,375	47	740	617	989	55	218	60	63
Lahore	2,328	578	634	612	1,624	98	182	227	197
Gujranwala	1,076	98	721	536	757	55	111	73	80
Jhang	10,944	1,478	614	571	3,789	678	140	838	5,549
Montgomery	3,480	1,838	602	558	326	68	65	1,409	1,612
Muzaffargarh	4,073	5,904	603	669	2,514	302	519	83	565
Dera Ismail Khan	1,245	375	720	610	905	21	16	71	142
Native States	9,767	4,209	589	..	2,154	310	1,696	5,484	123
N. W. P. and Oudh	7,434	..	688	..	6,710	189	265	244	76
Rajputana	1,061	..	585	..	481	106	72	448	4
Afghanistan	1,021	..	926	..	637	61	51	178	96
Europe, &c.	1,278	..	893	..	1,243	6	28	..	1

NOTE.—These figures are taken from Table No. XI of the Census Report of 1881.

Table No. VII, showing RELIGION and SEX.

1	2	3	4	5	6	7	8	9	10
	District.			Tahsils.					
	Persons.	Males.	Females.	Mooltan.	Shujabad.	Lodhran.	Mailsi.	Sarai Sidhu.	Villages.
Persons ..	551,964	..	..	170,610	61,622	98,203	141,517	80,012	463,881
Males ..	..	304,517	..	95,374	33,394	53,387	77,827	44,535	255,463
Females ..	..	..	247,447	75,236	28,228	44,816	63,690	35,477	208,418
Hindus ..	112,001	62,942	49,059	44,950	10,747	14,405	28,815	13,084	70,811
Sikhs ..	2,085	1,480	605	953	144	471	391	126	1,400
Jains ..	47	24	23	46	1	..	..	..	..
Buddhists ..	..	..	..	..	..	..	..	..	..
Zoroastrians ..	63	39	24	63	..	..	..	..	1
Musalmans ..	435,901	238,591	197,310	122,831	50,705	83,259	112,310	66,796	391,450
Christians ..	1,861	1,436	425	1,763	23	68	1	6	216
Others and unspecified ..	6	5	1	6	..	..	..	..	..
European & Eurasian Christians ..	1,819	1,418	401	1,722	23	67	1	6	..
Sunnis ..	431,656	236,322	195,334	120,076	50,567	83,165	112,254	65,594	388,618
Shiahs ..	3,830	2,031	1,799	2,242	187	43	156	1,202	2,445
Wahabis ..	79	44	35	26	51	2	..	..	56

Note.—These figures are taken from Tables Nos. III, IIIA, IIIB of the Census of 1881.

Table No. VIII, showing LANGUAGES.

1	2	3	4	5	6	7
		Distribution by Tahsils.				
Language.	District.	Mooltan.	Shujabad.	Lodhran.	Mailsi.	Sarai Sidhu.
Hindustani	10,446	8,904	166	415	835	126
Bagri	864	357	107	60	337	1
Panjabi	160,578	15,522	1,138	1,815	88,411	53,677
Jatki	375,097	142,038	59,779	95,500	51,727	26,053
Bilochi	11	3	5	..	..	3
Pashtu	1,260	854	72	52	189	107
Pahari	22	7	..	1	9	5
Kashmiri	59	51	..	2	1	5
Sindhi	1,018	777	11	195	13	22
Nepalese	1	1	..	..	..	..
Persian	25	19	..	1	3	2
English	1,794	1,707	16	64	1	6

Note.—These figures are taken from Table No. IX of the Census Report for 1883.

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